THE

MALABAR QUARTERLY REVIEW.

Vol. IV.] SEPTEMBER, 1905. [No. 3.

THE COMMONER VEGETABLE FIBRES OF TRAVANCORE.

TRAVANCORE is a paradise of vegetable forms. Removed but a few degrees from the terrific heat and thunder-storms of the Equator, washed for the entire length of its shelving coast-line by the surf and spray of a turbulent sea and perpetually fanned by balmy, invigorating breezes, Travancore, in its climate and vegetation, resembles some pearly, emerald isle of the Eastern Sea more than any other part of the mainland of India. The chief and most important result of warmth and moisture acting on even average soils is the formation of factors of remarkable potency in the creation and installation of forests. The influence and effect of powerful sunshine, copious shower and abundant dew upon the granitic and gneissic rock-formations, the laterites, clays and moulds of Travancore are manifested in the production of a fertile pabulum rich enough to maintain extensive masses of magnificent forest. From the low-lying palm-fringed stretches of seashore, elevated but a few feet above the foamy crests of the waves themselves, to the stupendous crags and pinnacles of the Ghats, the serried ranks of verdant hills rise high and higher till lost in the clouds. Thus, within the picturesque and flowery dominions of our Gracious Sovereign His Highness the Maha Rajah of Travancore, a lavish profusion of varied vegetation has been the gift of God and Nature.

In this favoured region of hill and forest there are thousands of species whose properties and value have yet to be discovered. It is a veritable "mine of wealth" whose finest veins have yet to be tapped. Timber-trees, food-plants medicinal herbs, ornamental species—await introduction to the outside world. Fibrous plants,

too, it is needless to say, occur in great abundance and variety. But, for the purposes of studying the commoner vegetable fibres of Travancore, there is little need to enter any of its many majestic and beautiful forests. In most cases, it is not necessary to even go so far as the outer zone of deciduous vegetation, near to us as that itself is. For, the majority of the commoner fibres of Travancore are produced by plants, both exotic and native, that grow in the gardens around our homes. But, before proceeding to describe any of these, it would be well to begin with some idea of what a fibre itself is.

The organic world (plants and animals), is built up entirely of certain "closed vesicles usually containing fluid, " of which the sides are formed of excessively thin (porous) "and pellucid membrane." These "closed vesicles" are called "cells." When a plant begins life, it consists of nothing more than a single cell. But, as growth progresses, the original vesicle divides and sub-divides until, from the assemblage of cells thereby formed are, in time, evolved the rudiments of the tissues of which it is to thereafter consist. As development continues, this differentiation of tissue also progresses until, sooner or later, but in the majority of cases, sooner or late, from the mass of primary constructive tissue, distinct groups of cells separate themselves, unite together, assume special characters and discharge special functions. Some of the simple vesicles of the primordial cellular tissue, however, continue throughout the life of the organism in the same structural and physiological conditions as those in which they at first appeared. Certain others become applied end to end with absorption of the intervening partitions to form narrow, closed cylinders or vessels; while others, again, develop into elongated tubes with tapering extremities which overlap each other and, by their union longitudinally, form the threads or "fibres" which are extracted for economic purposes.

If we were to except the lower forms of vegetable life which consist only of simple cells, *i. e.*, "cellular plants," we would find that the physical constitution of the vast assemblage of the plants of the earth is permeated by and constructed of fibres. All the tough, firm, woody parts forming the skeletal framework of the roots, stems and leaves of plants are almost entirely composed of them. They are the means of support of the plant in the medium in which it grows; they help to keep the leaves expanded to the influences of

light and air, and, occurring in more or less dense masses in the bark, serve to protect from evaporation the water, charged with mineral matters, in its ascent to the leaves and the elaborated sap in its descent to the roots. Thus, in the structures of the higher vegetable organisms, fibres serve for protection and support.

If we were, for the present, to except the large class of plants represented by the palms, plantains, (Bananas) ferns, lilies and others like them, which have no true bark and take up the other class represented by the jack, mango, cashewnut and other plants which have a true bark, we would find that what is called the *bark* generally consists of four more or less distinct layers. Naming these from the outside, there are

(1) the outermost skin (*i. e.*, Epidermis or Epithelium) (2) the outer bark (Epiphloeum (3) the middle bark (Mesophloeum) and (4) the inner bark (Endophloeum).

In this inner bark, called also the *bast* or *liber*; is usually developed, next to the wood, the largest quantity of the most useful fibrous material of the plant. The thick or thin-walled woody fibres, varying from $\frac{1}{2000}$ to $\frac{1}{230}$ of an inch in diameter, are found mixed with elongated cellular tissue and, frequently, with milk-vessels and glands. They are adherent to the membranous sides of the vesicles of the cellular tissue and are surrounded with mucilaginous, resinous and other vegetable secretions. The original membrane forming the basis of the fibre-cell is composed of a substance called "cellulose" which is related to starch and sugar. Cellulose, however, exhibits a remarkable indifference or resistance to the action of chemical re-agents which affect allied substances and the bodies with which it is associated in growing plants. To this power of resisting change it is that the value of a fibre, particularly for textile purposes, is due; on the same special property is also based the more ordinary methods of separating them from the other vegetable principles with which they are generally associated.

Classification of vegetable fibres.—The subject of vegetable fibres is so extensive that, for purposes of studying them, various classifications may be made. One of the simplest is, perhaps, what I have adopted in this essay which is but an attempt to lay the subject in a garb divested of much scientific knottiness and technical entanglement. It is to be, in other words, as far as

possible, like a good fibre of average quality,—of smooth even staple throughout. The most obviously elementary classification of vegetable fibres, then, for the present purpose is into—(1) Wood-fibres, (2) Bark-fibres and (3) Leaf-fibres.

(1) *Wood-fibres.*—The wood of plants is nothing more than a dense mass of fibres bound together by gummy, resinous and other cementing substances in such a manner as to practically resist all ordinary methods of separating them. The fibres themselves have grown hard, horny, tough and more or less brittle by the secretion within the original cells which formed them, of earthy matters such as lime, potash and silica.

The more ordinary uses to which wood has been applied are too well known to be dealt with here. Certain others are, perhaps, less familiar, such as, paving-blocks for streets, wood-pulp for paper-making, wood-wool and wood-marble.

Wood for blocks for street-paving must be hard, tough, even and close-grained; not liable to warp, split, or crack; able to withstand moisture and the attacks of insects; capable of bearing transverse strains; resisting torsion, twisting and so on. When obtained of suitable quality, it is usually cut up into cubes of convenient size which are closely packed side by side over a basement or foundation of cement, asphalt or other substance which, when dry, presents a hard and resisting surface. The upper ends of the blocks are then dressed smooth with plane or chisel.

The commoner woods of Travancore suitable for paving-blocks are:—

1. Kol-teak, a kind of hard-wooded teak growing on the lower hills and more open country, 2. Thambagom *(Hopea parviflora)* 3. Venga *(Pierocarpus marsupium)* 4. Thembavu *(Terminalia tomentosa* and 5. Maruthu *(Terminalia paniculata)*.

Wood for paper-stock:—

The qualities essential in wood for the manufacture of paper-stock are lightness, open-grain, softness, freedom from defects and unsoundness such as knots, burrs, decay and occluded broken branches; it should also be, as far as possible, of even texture throughout. As a rule, only the tender white or grey wood of young trees and the soft outer wood (sapwood) of more mature ones is employed for paper-stock. In Europe and America, the young

wood of pines, firs and a few other cone-bearing species (Conifers) is largely used. In Travancore, the more suitable of the commoner timbers are indicated by the following species.—1. Elavu or silk-cotton tree *(Bombax malabaricum)* 2. White cotton tree *(Eriodendron anfractuosum)* 3. Kumbil (*Gmelina arborea*) 4. Cheni (*Tetrameles nudiflora*) 5. Mango (*Mangifera indica*) 6. Vattay. 7. Podiani. 8. Moorikka (*Erythrina indica*) 9. Palay (*Alstonia scholaris* 10. Kodagapalay 11. Koondalapalay 12. Odalam or Chattay (*Cerbera odallam*) 13. Moringa (*Moring pterygosperma*) 14. Kat Avanakku or Nanjan pathal (*Jotropha cureas*) 15. Species of Kalli, such as Tirukalli (*Euphorbia tirucallis*), Elakalli (*Euphorbia neriifolia*), *Euphorbia kattimandu* 16. Tender Bamboos (*Bambuseae*) 17. Reeds (*Beesha spp*) 18. The stems of other large grasses and a host of other soft-wooded species which, in a country with a forcing climate acting upon a fairly fertile soil, shoot up with marvellous ease and amazing rapidity.

The method of utilization of wood for the manufacture of paper-stock falls under one or other of two processes.—(*a*) Physical (*b*) Chemical.

In the *physical process*, the wood is barked and cut up into pieces each about a foot long. Theses pieces are split up, all knots and decayed portions removed and they are passed between rollers under a constant stream of water. The pulp is then collected, sorted, and dried. In the *chemical process* the wood is cut up into small pieces and passed between fluted rollers by which it is broken up into chips; these are put into pierced iron barrels placed inside a large boiler filled with a solution of caustic soda. When full, the boiler is hermetically sealed and heated until the pressure inside attains the force of ten atmospheres, at which it is maintained for three or four hours; after this, the boiler and barrels are opened and the contents thoroughly washed with water. They are then passed through several sets of rollers from which the entire mass issues forth in large sheets which are rolled up into bales and stored away for use as required. This is pure *cellulose,* and is known in commerce as *paper-stock.*

When it is remembered that even the lower, open forests of Travancore abound in species of soft white-woods suitable for paper-stock and that its manufacture is comparatively simple and inexpensive, it will, I think, be admitted that, should the industry be introduced into this country, it is likely to prove successful.

Wood-wool is nothing more than the fine shavings of soft, even-grained, easily-workable woods. Wood for the purpose should be, as far as possible, odourless or, where that is difficult, of agreeable odour; it should also be free from easily-separable oils, gum, resins, dyes or tanning-materials; soft, more or less elastic, and, above all, obtainable in large quantities. Wood-wool is used largely and chiefly as a packing-material, for stuffing cushions, mattresses and in upholstery. Some of the finer kinds are used as tow and for caulking. Most of the light-woods mentioned as being suitable for the manufacture of paper-stock are well adapted for this purpose also: the wood of the Sterculias (Thondi), and the Grewias (Thadachchi) being particularly good.

Wood-marble.—This is a substance obtained by compressing the shavings and saw-dust of various kinds of wood by hydraulic or other pressure into blocks or boards. For greater æsthetic effect and beauty the saw-dust of woods of many colours is usually blended together; the product has then a pretty, mottled appearance which considerably enhances its value. When polished, it resembles coloured marble after which it has been named, and is used, like the latter, for floor and wall-decorations, tabletops, picture-frames and what-not. These are a few of the many peculiar uses to which wood-fibres are now-a-days applied.

Bark fibres.—Bark-fibres, in many respects the most important of all, are generally obtained from the bast or inner bark of the plants which yield them. In fact, their value and utility in the arts and manufactures are so great that, frequently, only those plants that yield them alone are said to be "fibrous." This class of fibres is not so firm or brittle as wood-fibres. They are also more easily separable from the natural media in which they occur. They are divisible into:—

(*a*). Bark-fibres suitable for textile purposes.

(*b*). Bark-fibres suitable for cordage and ropes.

(*a*). *Bark fibres suitable for textile purposes.*—

All bark-fibres capable of being spun into thread, woven into cloth or made into felt are suitable for textile purposes. They should, to satisfy these conditions, be of fairly long staple, tenacious, pliable; odourless, washable, of good colour, if possible, lustrous; light, soft, fine and, in general, possessed of such other physical properties as are likely to secure comfort, if not pleasure, to the wearer of the

fabric into which they shall have been woven. These are the more important of the qualities usually sought for in fibres that are selected to administer to the somewhat fastidious necessities of the higher textile industries. The chief qualities sought for in fibres for the lower textile purposes are, however, less rare. They are length, strength, pliability, resistance to moisture and, sometimes, good colour. Silks, satins, velvets and plushes, muslins, soft-stuffs and the other finer products of the spinner's and weaver's arts are the results of the application of fibres to the higher textile purposes; while canvas, sail-cloth, gunny-cloth and the other coarser woven stuffs used for rough-clothing, upholstery. sacking, matting and the like are familiar examples of products classed with the lower textile fabrics.

Examples of bark fibres used in the higher textile industries:—

(1) *Flax.*—The fibre which, from its great strength and wearing qualities, fineness, beauty and general utility commands the foremost place in the world's list of textile materials to-day is flax. It is also the most ancient of all fibres that have been known to man; for, there is evidence to show that it was used by his primitive ancestors in the Stone Age when, with the fierce Cave-bear and mighty Mammoth he contended for the kingship of ancient earth. Since then, long ages have sped, but flax has endured unto our own time, the prince of the aristocracy of fibre-yielding plants. Russia, Belgium and Ireland produce the finest flax in the world. In India, although its cultivation dates from early times, it is interesting to note that it has always been grown for its seed (Linseed) and not for its fibre. The Indian-grown plant is said to be even deficient in fibre. But the climatic conditions and soil formations of the Northern and Central table-lands of India are widely different from those of Travancore. Flax luxuriates over a loamy soil in a moist climate. Both these important factors are presented by our secluded river-valleys in most of which, therefore, it is likely to thrive, provided there is judicious selection of seed accompanied by systematic and careful cultivation. Riga seed is said to yield the best results. It is sown, like paddy, broadcast, and shoots up with the same ease. The crop matures when the stems turn brown for about two-thirds of their length when it is cropped, tied up into bundles and steeped in water for a week or ten days. The fibres then easily separate. They are thereafter combed, spun and woven into cloth. The delicate, snowy-white fabric called linen is obtained from flax.

It might be argued that flax, so far from being a common fibre in Travancore, is not even cultivated there and need not, therefore, have been dealt with in this essay. But to me it has occurred that such a criticism would not continue to hold with any force when it is remembered that the natural facilities offered by our country for the successful cultivation of the species are more favourable than those obtaining in the European countries which are at present the centres of its production. Few difficulties are likely to be presented, therefore, against its *becoming* one of our common fibres. In regard to the rest, it is the finest and most valuable of the world's fibres and no comparisons between textile fibres can be said to be at all instituted unless some passing reference at least be made to the autocrat that rules them all.

(2) *Hemp.*—In India, just as the flax-plant is cultivated for its seed only, so the hemp-plant is raised, as a regular crop, for the narcotic principles contained in its leaves and shoots. Although like flax the cultivation of hemp has been practised in Bengal from remote antiquity, its fibres have nowhere been extracted for commercial purposes. Its leaves, however, furnish the valuable but seductive drugs known as Ganja, Charas and Bhang. In Europe, on the other hand, the narcotic properties of the plant are disregarded and its valuable fibres are extracted. The cultivation and preparation of hemp are practically the same as those of flax. The staple of hemp is, however, stronger, coarser and less valuable. The colour of hempen fabrics improves with age while that of linen deteriorates.

It is worthy of note that though hemp is a native of Southern India, it is not only not cultivated there to any appreciable extent but that the chief centre of its production to-day is Poland in Russia.

Hemp grows with vigour in Travancore. On our hills, the Kanis and a few other hill-tribes frequently cultivate small patches of it for Ganja. If grown for fibre, it is likely to prove a useful and valuable industry.

Rhea or China-grass.—Of all the Indian fibres at present utilized in the higher textile arts and industries, Rhea, the product of a small undershrub closely related to our nettles is the most valuable. It is a soft, lustrous fibre, so fine and delicate that it has been classed with the vegetable silks. It is largely cultivated in Assam and Bengal and has been experimentally introduced into the

Agricultural Demonstration Farm, Trivandrum, where it grows with vigour. It is a somewhat exacting crop; but, beyond this, demands little caré in subsequent cultivation or tending. The plant is propagated by layers or root-cuttings. Four crops of sticks are obtainable in the year from each plant, and the stems being full of fibres, the yield is naturally large. The extraction of the fibre presents some difficulty because the resinous matters in the bark are difficult of dissolution by the ordinary methods of steeping or retting; boiling spoils the colour and weakens the staple. Special machinery is, therefore, now employed in the extraction and preparation of Rhea fibre. But it is so very valuable that it would pay to export the raw material itself in the shape of dried ribands of the bark.

Now that it has been successfully demonstrated that Rhea could be grown for fibre in Travancore, it is hoped that the time is not distant when full advantage of the fact would be taken by our local cultivators.

(d) *Ana Chorianum* (*Girardinia heterophylla*).—A fibre which I have succeeded in extracting from another plant belonging to the same class of nettles resembles Rhea so closely in colour, texture and strength that I feel confident it could be utilized for similar, if not for identical purposes. This plant grows wild on the banks of the canal at Quilon and in some of the gardens there. It is now not only shunned but carefully avoided: children, in particular, give it a wide margin on account of its terrible stinging hairs, which, even when the plant is dry, irritate the skin considerably. It is, therefore, a somewhat difficult plant to handle. A very beautiful white silky fibre is, however, obtained by steeping the fresh stems in water for a week. When boiled, the fibres, like Rhea, turn brown and are weakened. The fibre is worthy of introduction to commerce because of its beauty and strength, the ease with which it is extracted from the plant and the indigenous conditions under which the plant itself occurs in Travancore.

(e) *Ericum or Erikkalem* (*Callotropis gigantea*).—This plant grows wild in Travancore. It is generally met with on hot stretches of bare sand, as well as on dry, rocky exposed situations. It seems to thrive in localities in which other plants with less adaptability fail to obtain even a foothold.

For many years past, the great strength, beauty and general excellence of Ericum fibre have been known and appreciated in

India and Europe. The fibres are white, soft, silky, lustrous and very tenacious: like Rhea, they have been classed with the vegetable silks. The comparative shortness of the staple and the difficulty of extracting the fibres have always militated against its extensive utilization in the arts and manufactures. The easiest, though not perhaps the cheapest, method of extraction would appear to be extraction by hand. For this, the wand-like stems, which even in the natural state are seldom branched, are cut and exposed to the sun for at least twenty-four hours. The bark is then easily stripped off and the grayish-green outer skin broken at intervals and pealed away. The inner layer of bast-fibres which then remains, is picked and dried in the shade. I found that washing with clear water immediately after extraction improves the colour and softens the texture.

It has been suggested that for facility of extraction one or other of the many machines now employed in the separation of flax (which Ericum closely resembles) may, with advantage, be adopted.

(*f*) *Thutti, Oopum, Oopenachem.*—These fibres have been obtained from common hedge and garden plants growing in Trevandrum and Quilon. They are weeds that occur throughout the low-country of Travancore: at present they are classed as (കാട്) "Jungle" and are cleared periodically when the garden-land, on which they usually occur, is tilled. They are members of a large order (*Malvaceae*) of plants that luxuriate in almost all tropical low lands.

To obtain the fibres, the stems which shoot up after the rains, are cut and steeped in running-water. After a week, the bark will have sufficiently decayed to admit of the fibres being separated by washing. They are then dried in the sun and combed. The tannic and other colouring matters in the stems of these plants frequently interfere with the colour of their fibres. The whitest and most delicate fibres are obtained from young plants, those from the older stems being either gray or brown and somewhat coarse. If the steeping be overdone the strength of the fibres is considerably diminished.

The fineness, strength, lustre and beauty of this class of fibres mark them out as fitted for the higher textile purposes, though the Indian jutes, to which they incline most in structural peculiarities, are said to be adapted only to the lower.

Examples of bark fibres used in the lower textile industries.—

Crotalaria Hemp.—This is the earliest of the distinctly-named fibres. The English word Hemp is derived from the Arabic 'Hanf' which is itself but a corruption of the Indian 'Janapa' or 'Shanapan' obtained from the Sanskrit *Sana*. In the Institutes of Manu it is ordained that the sacred and sacrificial thread of the Kshatriya caste should be of Sana. Thus, the knowledge of the fibre could be traced back to very early times.

It is interesting to note that the generic name of the plant has been derived from the Greek word *Krotalos* which has reference to its ripe and loosened seeds rattling within the pods. The Malayalam name for the plant *viz.*, *Kilu kiluppi* or *Oolen-kilu-kiluppi* or *Killukku* also means a rattle and is descriptive of the same character.

A species of Crotalaria resembling *Crotalaria juncea* the Sunn-hemp or Shanam is cultivated as a regular field-crop in Shencottah. The same species is also largely grown by the Valens or fishermen of Ambalapuzha, Shertala, Vycome, Ålengad, Koonatnad and Parur, but the centre of its production is Yepathimangalom in Vycome. Here the plant, as well as its fibre are known as *Wuckoo*, the latter being largely employed in the manufacture of fishing-nets and tackle. *Wuckoo* is a delicate, graceful plant from 3 to 7 feet in height with small, narrow lightgreen pointed leaves. On maturity, it bears pretty racemes of bright saffron-coloured flowers which are succeeded by pods covered with soft and velvety skin.

In the Northern districts of Travancore it is grown on garden-land close to rivers and back-waters. The ground is thoroughly hoed and laid out in beds each about 40 feet long and 3 feet wide. In the month of May the seeds are sown broadcast thickly over the beds. They germinate in three days after sowing. The plants require no subsequent care or attention. The crop matures in three months after sowing and is reaped in August, just as the light-green pods begin to turn yellow. It is interesting to note that the yield of fibre on an acre of land, both in Shencottah and Shertala is not only the same but, what is more, the selling price of the fibre at Cochin is practically what it is in Shencottah. The average yield per acre is 500 pounds which, at the ruling market-rate of Rs. 7 per *thulam* of 20 pounds, amounts to Rs. 175. Bengal hemp, the product of *Crotalaria juncea*, is valued only at Rs. 5 per *thulam*, that is, Rs. 2 per *thulam* less than what the Travancore fibre sells

at. The following quotation from Royle's "Fibrous Plants of India," pp. 285-286, regarding *Wuckoo* is very interesting.

"To the Exhibition of 1851, some specimens of strong canvas were sent from "Travancore which have been much approved of by competent judges, from the "compactness and strength of the manufacture. On trial it was found that a "piece of this canvas containing *eleven* threads, was equal in strength to canvas "containing *fourteen* threads of Polish rein.........The fibres are brownish in "colour, about three or four feet in length, clean, and shining, not so fine as "Flax, but still resembling some of the coarser kinds. A very competent judge "informed the author that it might be sold for the purpose of Flax, or as a kind "of Flax, and was worth £ 35 a ton............Travancore, with Cochin as a harbour "which large ships can enter, is a favourable locality for the export of an article "which seems a very desirable object of commerce."

The method of extraction of the fibres of *Wuckoo* practised by the Valens of Vycome is as follows:—

The stems, directly they are cropped, are bundled up and stacked for three days. The bundles are then united and shaken to rid the stalks of the withered leaves. The tops and roots are cut away and the stems are dried for seven days. After this they are steeped in fresh water for seven days, taken out, thoroughly dried and once more stacked. In the dried state the fibres are easily extracted. As regards power to withstand moisture and wetting, it is interesting to note that fishing nets made of Travancore hemp last at least 12 years while those of cotton-thread deteriorate in ten and Bengal hemp in four years.

Besides the cultivated form just described, the genus of plants producing hemp is largely represented in the Flora of Travancore. Along the canals and back-waters from Trivandrum to Cochin and on waste-lands bordering the sea, particularly in the districts of Trivandrum and Quilon, many species are met with in a wild state. I have myself seen about six already, not forgetting the beautiful, dark-green, digitate-leaved species with bright sulphur-yellow flowers, *Crotalaria digitata* growing in swamps in the Ariencavu Valley as well as the equally pretty simple-leaved plant which flourishes on the banks of the Shanancaray Canal (4th mile from Trivandrum.)

A purple-flowered species of the same genus grows near the brackish waters of the canal near Ayiremthengu, a little north of Quilon.

Hibiscus spp.—The species of the genus Hibiscus to which the Vendai and the showy Shoe-flower belong are not only good fibre-producers but are also among the commonest of our plants. In fact,

the Natural Order known as the *Malvaceae*, under which are grouped the Hibiscus and other allied genera, is very largely represented by species both indigenous and cultivated in Travancore.

The chief characters presented by the fibres of this group are length, softness, fineness, lustre and strength. They are also easily separated by soaking the stems in water. Many of them, Oopen and Oopenachen, grow wild in the more badly-kept of our *purayidoms* (gardens), while others, like Vendai, Kasthuri-vendai and Chemparuthi are cultivated in most of our vegetable and flower-gardens. Even a cursory examination of a few of the fibres of this class, is likely to reveal their general excellence and beauty which, I venture to think, are in themselves sufficient to commend them highly to cultivation, commerce and the textile arts.

The physical characters presented by the fibres of the commoner Indian species of Hibiscus approach those of Jute, which they closely resemble; but, for the lower textile industries there can be little hesitation in pronouncing them even superior to Jute.

(3) *Jute.*—The word "Jute" is derived from the word "Jew," probably owing to the fact that, from time immemorial up to the present day, the Jews of Alleppo have been using the leaves of the plant as a pot-herb. For this reason, it has also been called the "Jew's Mallow." Although Jute has been known in many Asiatic countries from very early times, it was introduced into Europe only in the commencement of the nineteenth century. It is the chief fibre employed in the manufacture of gunny cloth, than which, in the shape of bags or sacks, no fibrous material is more universally diffused over the globe. It is, however, the most perishable of all fibres known to commerce. Directly it is extracted, Jute is of pearly lustre and colour but it soon deteriorates, with proportionate loss of strength, through gray and fawn to brown. Besides being used for gunny-bags, Jute in Bengal and China is also largely employed in the manufacture of cordage, paper and cloth. It is the cheapest of the cultivated fibres of India. The *tat* or finer cloth made from it is almost universally worn by the poorer classes of Malda, Dacca and a few other districts of Bengal. Every peasant, there has his patch of Jute and his *tat, chatee* or *megili* loom; so that, over a large portion of Bengal, the production of Jute is a household industry. At present, its production appears to be almost in excess of the demand which may perhaps, in some measure,

account for the fact that, after being cultivated, spun into thread, woven into gunny-cloth and carried all the way from Bengal, several pounds of it may, in the shape of a gunny-bag, be purchased in Chalay for the small sum of two annas. Again, the price of Jute must be low because it is wanting in strength, the most important quality requisite in a textile fibre. In our moist climate, especially, gunny-cloth lasts for less than two years.

Helicteres Isora.—Occurring as an undershrub in most of the lower and outer forests of Travancore, a plant familiar to us more by its spirally-twisted fruit than on account of its excellent fibres, bids fair to become, if introduced to commerce, a formidable rival to Jute. This is the *Edampiri-Valampiri* or *Kaivan*, a plant closely associated with the Vendakai class. It bears pretty reddish-yellow flowers during the rains and a remarkable fruit in which the carpels are twisted into a close spiral. This character has secured for the plant the English name of the "Indian Screw-tree."

The tenacious bast fibres of this plant are easily extracted by retting. A fortnight's soaking of the fresh stems in running water yields a fibre of not only good colour but of a pearly lustre. The Chalip-pans of Karamanai and the Pathians or low-caste dhobies of Central and North Travancore live largely by the sale of the coarse cloth, gunny bags and sacking made by them from the fibres of the Valampiri. The forest areas covered by the plant are, however, so extensive and accessible that should the exploitation and preparation of its fibres be undertaken on well-directed and systematic lines, the gunny-cloth industry, which is still backward, could be developed sufficiently to result in lasting benefit to Travancore.

(3) *Bark-fibres suitable for cordage and ropes.*—

Before proceeding to describe the commoner plants of Travancore suitable for cordage and ropes, it would be well to begin with some idea of what a cord is and how it differs from a rope. For this purpose, however, we have to go back to the simple cell that gives rise to the fibre itself. In ultimate analysis, a fibre is seen to consist of several simpler cells each of which is called a *fibril.* When several fibres are twisted together so as to form a simple, elementary strand, the result is called *twist or yarn.* At least two yarns form a *strand*, technically so called; several strands make a *rope* and several ropes a *cable.* Besides these words, we frequently hear of *salvages, twines* and *cords.* The first of these is nothing

more than untwisted skeins of fibre which are sometimes used where great strength and pliancy are demanded; for, it is a well-known fact endorsed by daily experience that the action of twisting, however slight, impairs the strength of vegetable fibres. *Twines* are strands of narrow calibre and fine twist: while, *cords* are only thicker twines.

Twines and cords being finer (of smaller calibre) than ropes, the fibres employed in their manufacture should generally be possessed of greater tenacity and breaking-strength than those used in rope-making. The Indian Hemps, Jute, species of Hibiscus, Thuthi, Ericum, Ganja, Murikka, Flax, Anachorianum, species of Grewia, Sooriakanthi or Sun-flower, Valampiri, Mulberry, Nedunar, Rhea, Agathi, and Sola, Pooaras, and Attu-paruthi are among the commoner fibres suitable for the manufacture of twines and cordage. Some of these, such as the Hemp and Jute, are already extensively utilized for the purpose; while a few of the others such as Flax, Rhea, Anachorianum and Ericum are, obviously, too valuable though they are strong enough. The qualities essential in fibres for rope-making are strength, pliability, capacity to withstand moisture alternating with dry heat, and lightness: they should also be obtainable in large quantities and should be easy of extraction.

Examples of the commoner plants of Travancore whose bark-fibres are suitable for ropes and cables.—

Inja, Shiakka, Aranthal or Arayanjili, Jack and Anjili, Species of Bauhinia, Thondi, Mūl Elavu, Rattans, white Cotton tree or Elavu, Moorikku, Species of Banyan or Ficus such as Thërakam, Alu, Athi Pay athi, Kal älu, Arasu, Species of Grewia, Moringa, Oothi or Kalashan, Nedunar, Poonga, Vénga; Species of Sterculia such as àna vakka nàr, Poo aras, and àttu Paruthi. These are but a few of the many hundreds of plants whose barks yield rope-fibres. In a country abounding in whole families of tropical Species famous throughout the world for the production of tenacious bast-fibres it would be a very laborious task indeed to specially indicate more than a few of the more prominent.

(3) *Leaf-fibres.—*

Leaves are ordinarily divisible into,

(*a*) Net-veined, and

(*b*) Parallel-veined.

(*a*) A net-veined leaf is one in which the arrangement of the fibrous tissue or "veins," popularly called "nerves" is such as to present a reticulated appearance resembling a net. To follow Doctor Johnson's definition of the latter article more closely, there are "interstices (of cellular tissue) between the "intersections" (of fibrous tissue). The veins, though arranged upon a definite, fixed plan, frequently for whole Orders of plants, are, at first sight, irregular and appear to anastamose or run into one another. With few exceptions, the large class of plants which, on germination, possess at least *two* seed-leaves, (Dicotyledons) have leaves of this type. The Jack and the Mango are familiar examples.

Owing to the difficulty of extracting them and the shortness and uneven quality of the staple when extracted, the fibres from net-veined leaves are not ordinarily applied to economic purposes. It is not so, however, with the other large class of leaves in which the veins are parallel. In this type the fibrous tissue is arranged parallel. In this type the fibrous tissue is arranged parallel with the length of the leaf. They occur in long delicate filaments running from end to end, and are usually separate and detached, the one from the other. They are found in greatest abundance near the surface of the leaf, especially the lower surface.

The usual characteristics presented by leaf-fibres are length, pliability, good colour (usually white), and frequently, considerable tenacity. They are easily extracted, particularly if the leaf be fleshy and fresh-cut. As a rule, this class of fibres deteriorates both in colour and strength when boiling or retting is adopted in their extraction. They are, therefore, best extracted when the leaves are fresh by mechanical means aided by washing and airing in a cool place. Exposure to the sun often turns the fibre brown and, in some cases, even brittle. The great class of plants generally possessing parallel-veined leaves is very largely represented in the Flora of Travancore. To it belongs the wild date palm and the feathery cocoanut; the stalwart Palmyra and the graceful Arecanut. The lovely rattan-palm that twines over stem and branch and clings for support to its nearest sylvan neighbour has natural affinities that bind it to the great Caryota and giant Talipat; while, umbrageous Plantain-trees (Bananas) and beautiful Lilies are but cousins of a "close move of" to pine-apples and screw-pines.

Of all the Travancore plants yielding useful leaf-fibres the commonest are the plantains (Bananas). Here, as in most other tropical countries, several species are indigenous and at least three luxuriate in our moister forests. In the great Island of Mindanao, in the Philippines, the plantain fills extensive forests, one species of which, under the name of *Manila Hemp*, in elegance, tenacity, durability, lightness and cheapness excels the finest Russian Hemp. Although its huge clusters of light-green fruit are disagreeable to the taste and, therefore, inedible, there are few products of the vegetable kingdom that are more valuable to the inhabitants of the countries included within the limits of its geographical distribution. To thousands, its fibres are what cotton is to us,—the commonest and most important staple forming the dress-material of the people. From Manila Hemp are woven the coarsest canvas and the finest muslin. The most highly-prized and distinctive part of the national dress of all ages and both sexes of the upper class of Filippinos is a delicate, lustrous silken web of the fibre.

The plant not only furnishes fibres for the higher and lower textile purposes but the most valuable vegetable rope in the world is made from it. What is popularly known as the stem of the plantain is nothing more than the result of the close enfolding over one another of the lower petioloid expansions of the leaf-stalks of the plant. The fibres furnished by the outer petioles (പോള) are thicker, stiffer, coarser and stronger than those obtained from the inner ones. They are also more easily extracted than from the latter. For these reasons it is that they are preferred for rope-making. The more delicate inner fibres, on the other hand, supply the material for the higher textile fabrics, and are therefore of greater value. This plant has not only been introduced into Travancore but, if we are to judge of the specimens now living, from the vigour of their growth and the general excellence of their fibre, the acclimatization of the species in Travancore may be said to be practically complete. This we owe to the zeal and enterprise of Mr. T. Ponnambalam Pillay, Assistant Superintendent of Police, who during the brief period during which he acted as our Conservator of Forests, introduced this as well as other valuable exotics.

The Manila hemp, like the ordinary plantain, is propagated from shoots which are thrown out around the parent plant. The lowest mean temperature of the year requisite for the well-being

of the species is 75° Fahr. It is a purely tropical form which luxuriates in warm and damp climates like ours. Its cultivation, too, being similar to our plantain, it would be superfluous to describe it here.

The method of extraction of the fibre in the Philippines may, however, be interesting to would-be cultivators in Travancore. The plant is said to mature for fibre in about 18 months after the shoot sprouts and it is cut *before* flowering. The fibres are then said to be shorter but finer and stronger than those obtained from older plants. The fruit being inedible, there is no special object gained in letting them run to seed: a few may perhaps be retained as seed bearers for, the seed, too, germinates freely. However, after cutting the plant, it is left to wither in the shade for a day. The leaf-stalks are then separated and cut up into strips each about six feet long and three inches wide. The outer and inner strips are sorted, placed on boards and scraped with a piece of sharp-edged bamboo, until all the cellular matter is removed. The fibres are then washed, dried and picked. Those intended for weaving purposes are further softened and made pliant by beating them with wooden mallets. The fibres are thereafter glued on to each other end to end and committed to the loom. After weaving, the cloth is soaked first in warm lime-water for 24 hours, then in cold water, then in rice water and, finally, washed. By the time these processes are completed it will have acquired lustre, softness and a white colour.

The Trivandram School of Arts has, for some time past, been experimenting with the fibres of the commoner species of plantains. It has not only successfully extracted them but has recently proved, beyond doubt, that the fibres of our ordinary plantains can be woven into fabrics of great lustre and beauty. It is hoped that the time has come when the public of Travancore would mark their appreciation of the importance and value of the new industry by taking advantage of the results obtained in more practical ways than admiration.

When it is remembered that there are at least about fifty different varieties of plantains at present cultivated in Travancore, and that the fibres from the many millions of plants raised annually are now wasted, it will be admitted that the exercise of a little prudent enterprise coupled with the outlay of a little capital is likely, before long, to place the manufacture of plantain cloth in Travancore among the leading industries of the country.

Besides textile fabrics of fine quality and lustre, the other uses to which plantain fibres may be applied are the manufacture of canvas, cordage, paper-stock, stuffing of mattresses and such like, tow and packing material. Speaking of plantain fibre, Royle says, "If properly considered it cannot but appear of vast importance to "the natives of tropical countries and to planters and colonists "abroad to utilize so valuable and abundant a product which is now "allowed to run to waste and of which, if they increase the culti-"vation, they will at once attain the two-fold object of multiplying "the supply of food for the body at the same time that they are "increasing materials for diffusing information for the mind."*——

Agave americana, Fourcroya gigantea.—The Mexican aloe or Century plant and the *Fourcroya gigantea* or green aloe of St. Helena have been acclimatized in Travancore many years since. Being plants that grow in their natural habitats on poor, dry, stony or sandy soils, they flourish in the country. The Mexican aloe (ആനക്കററവാഴ) especially is largely grown as a hedge plant in South Travancore. It comes to perfection in three years after planting out and sometimes takes twenty years to flower; so that, each plant is capable of yielding its crop of leaves regularly for many years. It requires no care in cultivation.

The fibres are exracted by bruising and steeping the leaves in water for three days and afterwards beating with wooden mallets to clear away the cellular parts. Instead of steeping, it would be better to soak the leaves under wet sand and, rather than beating which breaks the fibres, pressing between the grooved cylinders of a suger-cane mill is likely to prove more efficacious and expeditious. When fresh extracted, the fibres are longer and whiter than by any other method which I have employed; but the juice from the leaves is a great irritant which itches and blisters the skin. The fibres of this and of the green aloe plant are of great length, strength, toughness and durability. They are lighter than hemp and stand moisture better, and are stronger and more pliable than coir. Twine, cord, rope, rigging for ships, fishing-nets, hammocks, mats and carpets, and paper are some of the commoner articles manufactured from these fibres.

Agave sisalana and *Agave vivipara*.

These species have also been introduced into Travancore as hedge plants. In Shencottah and South Travancore they have run

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* Royle's *Fibrous Plants of India*, page 90.

wild. In Quilon the fibres of *Agava vivipara* are largely used by the Mahomedan grass-mat-makers as the warp threads across which the woof of prepared rushes is laid. The fibres of these species are suited to all the purposes to which those of the other two are applied. Ordinary Agave twine is made in Quilon from *Agava vivipara* by a Tamil man who says he sells it in Alleppey for from Rs. 80 to Rs. 100 per candy of 672 pounds—according to quality. It could be spun into yarn as easily as coir, either by hand or with machinery.

Marul.—Sansevieria Zeylanica, wild, and other spp.

Adam's Needle (*Yucca gloriosa*, also *Yucca filamentosa*).

There are various species of Marul which are practically indigenous to Southern India. Their usual habitats are, however, the coasts of Guinea, Ceylon, the Bay of Bengal, Java and China. The class of fibres yielded by them is known in commerce as "Bowstring Hemp" from the fact that the natives of the Northern Circars still use them for that purpose. It is believed that in the Mahabharata the famous bow of Siva, wielded with such telling effect on the plains of Kurukshetra by the warrior prince Arjuna, was strung with Marul.

The commonest species of Marul, and for economic purposes, one of the finest, is that which produces the flattened, erect leaves. The plant is easily recognised by the remarkable colour of its leaves which is frequently likened to that of snakes. The leaves attain, under proper cultivation, a length of from 3 to 4 feet. An acre is said to yield 3000 pounds of fibre in the year; 40 pounds of leaves being required to produce a pound of the fibre.

The fibres, though shorter than those of the American aloe plant, are softer and finer. They are stronger than Russian Hemp. Like pine-apple fibres, they are useful for the fabrication of fine cloth and lace. They are too beautiful for tow or cordage and too precious for paper-stock.

The fibres are best and most expeditiously extracted by mechanical means such as scraping when the leaves are fresh. On extraction, washing in cold water followed by drying in the shade, improves their colour.

The species of plant called Adam's Needle, also yields fibres suitable for the higher textile industries. The commonest species is the *Yucca glorisa* met with under cultivation in flower gardens in

Trivandram and other large towns. It is a native of the Southern United States where it thrives in spite of exposure to extremes of climate. Its fibres are coarser and less beautiful than those of Marul and when fresh, more difficult of extraction; but, the extended cultivation of Yucca in Travancore side by side with Marul and the American aloe is likely to prove as profitable as either.

It may be mentioned, in passing, that the fibres of a species of Yucca (*Yucca filamentosa*) called Bear-grass are as fine, as beautiful and as valuable as silk. This species may be seen growing in the Trivandrum Public Gardens. It is at present rare in Travancore, but judging from the rapidity of growth and vigour of other species of the genus already established, its extension by cultivation is not likely to be attended with any but favourable results.

Pine apple.—There are two varieties of Ananas or Pine-apple in Travancore, the one known as the wild or country Pine-apple and the other said to have been introduced from Mauritius and called after that country. Pine-apples are natives of the continent and islands of America and, like our other more esteemed fruit-plants, were introduced into India by the Portuguese in or about the year 1594. In so far as the qualities of the fibres are concerned they are practically identical. Mauritius variety still possesses high virtues as a fruit-producer and, whatever finer qualities may have been presented by its fibres in earlier times, they are in fact weaker than those of the wild variety. The Pine-apple is regularly, though not systematically, cultivated in some of the districts of Travancore. In Trivandram, Neyyattinkaray, parts of Vilavancode, and other Southern Districts it is produced in larger quantities perhaps than elsewhere.

The usual length of the leaf is between three and four feet though, when wild, it attains five and even seven. The pine-apple is easily raised from root-buds thrown out around the rosette of leaves of the mature plant, or from the bud developed at the top of the fruit. In a country in which its cultivation has been known and practised for centuries, it might perhaps seem superfluous to offer suggestions for improvement in that direction. But the wonderful results obtained in the systematic culture of the plant in other countries, and especially in Florida, would indicate the desirability of improving its cultivation in Travancore as well.

For fibre, the plants should be put out four feet apart on ridges each thirty feet long, three feet wide, and one foot high. The soil should, if possible, be a loam with a fair admixture of sand. The plants should be shaded and watered in the hot season: at other times they should be exposed to weather. Under these conditions, the length and width of the leaf are considerably increased and the layer of fibres in it rendered softer and finer. Under the names of "Batiste d'Ananas" and "Pina Muslin" are exported from the Philippine Islands delicate and valuable fabrics possessed of great strength and good wearing-qualities. These cloths are manufactured from the fibres of the Pine-apple by the Filippinos and Tagals with whom it is a well-established and regular industry.

The fibres for the purpose are extracted by scraping with broad knives the upper surfaces of the fresh leaves after they have been laid flat on wooden boards. The fascicle of fibres is seen to lie on the denser green skin below from which it is detached by hand, washed and dried. The ends are glued on to each other as in the case of the fibres of the Manila Hemp and the long threads are, thereafter, committed to the loom. From its silky lustre and great strength pine-apple fibre has been suggested as a substitute for flax in the finer cambric manufactures of Ireland.

The Screw-pine.—This plant is so called partly because the arrangement of the leaves on the stem resembles the spiral of a screw and partly because the fruit, like the pine-apple, resembles the cone of the pine. It is one of the most characteristic forms of tropical vegetation. In some countries, like Madagascar and the Islands of the Mergui Archipelago species of Screw-pine frequently grow not only to the exclusion of all other vegetation but even attain the remarkable height of sixty or eighty feet. On King Island one species is an extensive climber while another yields an edible fruit. In Travancore the largest species occurs only as a shrub rarely rising to more than fifteen or twenty feet in height. The leaves as well as the stems and aerial roots contain abundance of long white fibres which are easily separated by retting. The fibres of the stem are weak; they are therefore more fitted for paper-stock than cordage. The root contains two distinct classes of fibres—the outer sheath producing a fairly tenacious material suitable for cloth and cordage, while the inner core yields a stiff, coarse,

white fibre which may be used as a paper material. The fibres of the roots are also well adapted for paint and varnish brushes and for corks.

The fibres of the leaves are suitable for paper-stock, cordage and sacking. In Mauritius sacks are largely made of this fibre. A plant there, in its second year, is said to yield sufficient fibre for the fabrication of two sacks. This is a direction in which screw-pine leaves may, with profit, be utilized in Travancore; but, any endeavour to introduce the industry must be carefully subordinated to the requirements of the local manufacture of mats and baskets by the poorer classes.

Sedges, Rushes (കോര) *and Grasses.*—The flowering stalks and leaves of our commoner rushes, sedges and grasses could be utilized for more purposes than those for which they are at present employed. The industry of mat or basket-making from the stalks and leaves of the various species of rush and sedge in Travancore has yet to be stimulated and developed.

One of the earliest of paper-stuffs employed by civilized man was a Kora (Sedge), for, in Ancient Egypt, Papyrus, the hoary ancestor of paper, was manufactured from a common sedge which still grows on the banks of the Nile. Ropes, paper and even boats could be made of sedges and rushes. They are also invaluable as stuffing and packing material.

Grasses.—Except as a thatching material in some parts of Travancore, the leaves and stems of our larger grasses are at present little utilized for fibre. Yet, from their abundance in the country and from the fact that extensive fires sweep over large areas of grass-land and periodically consume them, it is a matter for regret that some at least of it should not be saved and utilized. The abundance and cheapness of grasses mark them as specially suited for the manufacture of paper and when, like Esparto, some of them are found to possess fibres of great tenacity and beauty, they may be said to unite in themselves the most essential qualities for the purpose. Besides for paper, grasses are utilized for mat and basket-making, hats, cordage, nets and toils, chains, sacks, screens, writing-pens, arrows, sandals and, what not.

Palms.—Coir, the produce of the Cocoanut palm, is not a true fibre but like cotton and the other vegetable flosses, is only a seed-hair. It will not therefore be described here. The fibre of the

Cocoanut, Palmyra, Caryota, Talipat and wild Date are, however, contained in their stems, leaves and leaf-stalks and in the peduncles or stalks bearing their clusters of nuts. These are all characterised by extreme tenacity, a certain degree of elasticity, firmness and gloss. They are specially adapted for the manufacture of brushes and brooms, cordage, ropes and cables. Palm-fibres are susceptible of being exploited in Travancore on a larger scale than they are at present. There are many millions of both cocoanuts and palmyras in the country and it would pay to export not only the stiffer fibres yielded by these species, but the valuable and famous "Kittul" fibre obtained from the fronds of the Caryota are always in great demand in Europe and America for brush and broom-making.

The great importance of the fibrous plants of the world to its material prosperty cannot be better gauged than by a consideration of the number and variety of the industrial arts whose very existence depends upon the utilization of fibres. The wide sense in which the term *fibre* is understood in Economic Forestry includes, as we have seen, *all* the woody parts of plants, and, it were vain to attempt to detail, because they are legion, the industries employing fibrous materials. In the great industrial awakening of the world in which India has shown considerable appreciative participation, why should we alone lag behind? Are we intellectually, morally or, for that matter, even physically inferior to the thousands who have not only long ago realised the importance of this awakening but are daily profiting by it? Living in a mild and équable climate, in a paradise of plants, and subjected to no civil disabilities under the liberal and beneficient rule of a Sovereign whose motto is 'Charity our Household Divinity' are we not patriots enough to appreciate and take advantage of the great impulse to technical education which he has graciously condescended to give? If we do not, then, we are likely to be left, when it is too late, in the rear of the march of that industrial advancement which the dawn of the century has been characterised by.

In concluding this somewhat hasty review of the commoner vegetable fibres of Travancore, it is, I think, within the province of this essay to urge upon my readers the importance of studying the details of so important a subject themselves. It is a business of students of Economic Forestry to introduce to public notice the species and products whose properties indicate their value and utility in the

industrial arts and manufactures of the world. No comments upon profit or loss or upon the strictly commercial aspects of the subjects treated can find place in their work. Owing to divergence in local conditions, facts and figures bearing upon trade and industry that have been deduced by observation and experiment in one country will not apply to the necessarily altered conditions obtaining in another. In the course of the preparation of this essay, the force of this argument has so frequently been realized by me that I have refrained from quoting figures showing even the relative strength and yield of the commoner fibres for fear lest such information should, by misleading, prove worse than useless. It is for would-be students of Economic Science in Travancore to work out details such as these. No science offers greater scope for material advancement and, surely, few are more fascinating. In endeavouring to study the subject, however, we cannot but feel encouraged by reflecting that the finest and most valuable of the fibres of Travancore are yielded by some of the commonest and most despised of the humbler forms of her luxuriant and beautiful flora.

A. M. SAWYER.

WHAT IS PERSONALITY?

THE long tirade of twenty pages that appeared in the last number of this Review under the heading *Is there not a cause?* professes to be an examination of my paper on personality in the March number. Though there is a philosophical jingle about it, it is evidently the product of a mind more prone to invective, verbiage, misrepresentation and misconception than to clear thinking and calm investigation. In his rambles in the foggy fields of personal idealism the writer seems to have dreamt of a spectre which he is endeavouring to belabour with all his might and fury. I should have left this chivalrous knight in contumelious silence to himself to tilt against his imaginary windmills, had it not been for the duty I owe to the readers of my papers on Buddhism.

A critic is naturally expected to owe some obligations to those whom he presumes to criticise. He is first of all expected to be courteous, though discourtesy in the heat of discussion may to some extent be overlooked, as all the world knows that abuse is no argument. Worse than discourtesy is misrepresentation. Nothing can be more inexcusable in a critic, especially in a philosophical controversialist, than the ascription to his opponents of views they have never held, or the mangling of their statements by additions and omissions. Where on earth have I said that "the logic of connotation and denotation is a worthless study'? If my memory does not fail me, I said at the last Madras Educational Conference that all students of logic are not necessarily clear thinkers, cogent reasoners, or lucid writers. Need we look for a better example in support of my contention than the diffuse performance I am now reviewing? There may perhaps be some excuse for ascribing to another a view he does not hold when one has to depend solely on memory. But what excuse can there be for mangling quotations from a printed article? On page 66 of my article I say: "In his complete nature man is a compound." But in his article (p. 164) the critic quotes me as saying: "In his complete nature man is a compound, body and mind." Not only does this philosophic critic feel no compunction in mangling my statement, but has also the temerity to remark that 'the sentence quoted is neither English nor sense.' Again, on p. 181 in quoting my words 'the denial of a separate self, an *atman*, does not obliterate the personality of a man,' he has left out the significant words "separate" and 'an

atman' with a view, I believe, to mislead the reader. Furthermore, while I specially mention that consciousness is no result of mechanical effects (p. 65), the writer endeavours to make out that I reduce 'consciousness to mere mechanical movements.' I fear the impulsiveness and prejudice of the writer got the better of his honesty and sense of justice.

He who speaks blatantly of the ignorance and 'froglike' experience of others ought first to make sure of his own knowledge. We are told that 'the continuity of spirit and an endless evolution is the heart and soul of Buddhism?' If this is intended to mean that the belief in an eternal self, an *atman*, is the cardinal tenet of Buddhism, it bespeaks the most pitiable ignorance of the very elements of Buddhism. The most prominent feature of the philosophy of Buddhism—and in Buddhism there is no difference between philosophy and religion—is the denial of an *atman*. *Anitya, dukkha, anatman* are the words which the ignorant but pious Burman Buddhists are always muttering. The belief in a permanent self is regarded as the most pernicious error, as the most deceitful illusion which will irretrievably mislead its victims into the cycle of *samsara*. Says Professor Rhys Davids: "This belief in self or soul is regarded so distinctly as a heresy that two well-known words in Buddhist terminology have been coined on purpose to stigmatise it." I challenge my critic to quote a single authority on Buddhism against my statement. That the Buddhist view of personality is the same as that of modern psychology has been noticed by many writers in the west. In his *Die philosophische Grundlage des alteren Buddhismus* (1904, Heidelberg, pp. 119—120) Professor Max Walleser says that "the view here expounded is *mutatis mutandis* precisely the same as that of modern psychology, which also regards the 'I' as 'the complex collective idea of one's body and one's momentary dispositions and percepts." In Buddhism the combination of the *skandhas* is nothing else than the composite idea of the body (=rupa) and the momentary dispositions (=samskaras) and emotions (=vedana) and perceptions (=samjna) and ideas (=vignana) of modern psychology.

We are told that the personality of a man is not a thing. Now what is a thing? In Annandale's Dictionary a thing is defined as "whatever exists, or is conceived to exist as a separate entity." A personality is surely something that exists, and is therefore as much

entitled to be spoken of as a thing as the hardest thing in space. No less a philosopher than Kant has used the term thing with reference to the ego. He says in his *Critique of Pure Reason*: "The ego, as thought by the inner sense in time, and objects in space outside it are indeed entirely distinct phenomena, but they are not for this reason to be conceived as different things." Do we not speak of a man as a living thing? Do we not speak of a spirit as 'an indivisible, unextended thing which thinks, acts and perceives'? What objection can there be to speaking of personality as a thing? According to the Buddhist view personality is both body (*rupa*) and mind (*nama*). There is no such thing as disembodied personality. Personality is therefore in space. And what is space? The physiology of the senses demonstrates that space can just as appropriately be called a sensation as colour or sound. The idea of space is invariably connected, as Stallo points out in his *Concepts of Physics*, in consciousness with some definite quality of sense. "When we attempt to bring space before the mind (or, as it is usually called, to "realize" it) in its visual aspect, it always appears in a synthesis with a mental reproduction of some sensation of colour, however faint. Similarly, when we make the effort of mentally "realizing" or representing it in its tactual aspect, it proves equally indissociable from a reproduction of some form of pressure or feeling. In this respect the arguments of Hume and Berkeley (which are of necessity simple appeals to consciousness) have never been successfully met. The dissociation between the "idea" of spatial extension and the feeling or feelings constituting sensation which we are able—and for the purposes of discursive reasoning, constrained—to effect, is not an *intuitional* (using the word in the Kantian sense), but a *conceptual* dissociation." Again we are told that personality can have no parts. If we can speak of the colour of a rose as one of its parts, we can with equal cogency speak of the elements which go to make up a personality as its parts. If one, two and three added together form six, six is not only the sum of one, two and three, but it is also the whole of which one, two and three are parts. But for me personality is not merely a sum. It is, as I have said, the result of the interaction between certain psychical and physical processes. The materialist admits the action of the physical on the psychical without admitting the reaction of the psychical on the physical. The personal idealist admits the action of the psychical on the

physical but denies the action of the latter on the former. But according to our view there is no qualitative difference between the two processes and there can be no objection to their being causally related to each other.

Personality is said to be a cause. The Buddhist does not deny this. *Samskaras* form one of the elements which enter into the formation of a personality. We translate *samskaras* by dispositions. It is these dispositions that form the roots of volition and the basis of character. Volition, considered as a mere state of consciousness, is nothing more than an affirmation or a negation. Volition by itself, as a state of consciousness, has no efficacy to produce an act. The acts and movements which accompany a volition result directly from the dispositions, feelings, perceptions and ideas which have become co-ordinated in the form of a choice. We therefore do not deny that the will has its roots inmost in us and that there is a spontaneity about it. We may go further and define the will as an individual reaction and a cause. But as I have shown in my paper on causal nexus, what is a cause can also be an effect. Nor is it necessary to make of the personality an independent transcendental entity in order to recognise in it a true causality.

To the jaundiced eye everything looks yellow. To the solipsist's eye things seem to be made by the mind. But the theoretical solipsist is never such in practical life. Like the ordinary man he too has to run away to the hills to avoid the hot weather. It never occurs to him that his mind could unmake what it made. If things were really made by the mind, there could not be this divergence between theory and practice. We find colours, sounds, spaces, pressures, temperatures and so forth bound up together in manifold ways, and with these we also find associated ideas, emotions and volitions. Out of this complex texture rises into prominence that which is relatively more fixed and permanent and impresses itself on the memory, and finds expression in language. Certain of these complexes of relatively greater permanency are called things. None of these complexes is absolutely permanent. We regard a thing as one and unchangeable, only so long as there is no necessity to consider details. Thus we speak of the earth and a billiard ball as spheres when great precision is not necessary, and we can overlook their deviation from the spherical form. But if the purpose in hand is an investigation in orography or microscopy we

can no longer treat both bodies as spheres.

Similarly the personality of a man is a complex of certain colours, sounds, spaces, &c. (=rupa) and certain ideas, emotions, volitions, &c. (=nama). Human personality is therefore as much entitled to be called a thing as any other thing in the world. The personality of a man is as little absolutely permanent as are other things. The apparent permanence of personality consists in the slowness of its changes and in the fact of its continuity as explained in my article. The fact that there is a consciousness of identity and of an effort towards an end does not prove that a man's personality is simple. Various phenomena go to show that human personality, though at first sight it appears to be simple, is really a product of the interaction of various elements. As Professor Charles Richet* says, human personality "arises first and principally from the memory of our past existence, then it emanates from all the sensations which come to us, sensations of our internal organs, sensations of the outside world, consciousness of effort and of muscular movement."

Human personality is a compound of body and mind. Disembodied personality is no personality in the real sense of the term, Poverty of language and practical sufficiency permit the use of such expressions as a truncated cone, a cube with bevelled edges, disembodied personality, which involve contradictions. Personality or ego is, as previously pointed out, really a complex of certain colours, sounds, spaces, &c. bound up with certain volitions, ideas, emotions &c. But because it is possible to take away constituent parts in thought without destroying the capacity of the residual image to stand for the whole, we give the same name to the residuum. Thus has arisen the practice of regarding the ego as being made up only of volitions, ideas, emotions, &c. Even then what is of primary importance in personality is not the 'I' but the elements which constitute it and the manner in which they are connected. If this does not satisfy us, and we ask, who has these volitions, emotions, &c.? and then assume the existence a noumenal self, an *atman*, we have only succumbed to the primitive habit of treating an unanalysed complex as an indivisible unity, like the Fiji islander who ascribes a soul to a cocoanut. It is pointed out that a psychical experience (or *erlebniss*) which is not the *erlebniss* of a particular

* Annals of Psychical Science, Vol. I, p. 278.

subject is unthinkable. This is supposed to prove the prime importance of the unity of consciousness. But how? May not a subject built up out of the elements (colours, spaces, volitions, &c.) react on the elements themselves? We find that a physical event which does not occur in some definite surrounding is unthinkable. Yet in investigating it we abstract it from its surroundings. Are we not equally entitled to do it in the case of psychical events?

Between physical and psychological research there is no absolute gulf. A colour is a physical object so long as we consider its dependence upon the source of light, upon other colours, upon space, media and so forth. For example, the green colour of the table cloth before me is united with a certain optical sensation of space and sensation of touch and with the light of the sun which is illuminating my room. If the room be darkened and then illuminated with the yellow light of sodium flame the green of the cloth passes into brown. This is a physical investigation. But if we examine the dependence of the green upon the retina it becomes a psychological object, a sensation. But in itself the green is not altered, whether our attention is directed to the one or the other form of dependence. Not the material but the direction is different in the two investigations. When we investigate the dependence of one element upon another, if one of the elements passes through the skin, we pass out of the domain of physics into the domain of physiology or psychology. Where then is the opposition between the physical and the psychical?

The old habit of treating the unanalysed complex of personality as an indivisible unity has manifested itself in remarkable ways in psychology. From the body the nervous system is first isolated as the seat ef psychical activity. In the nervous system again the brain is chosen as the part best suited for this purpose, and finally to preserve the supposed psychical unity—imagined to be like the mathematician's point without parts or magnitude—some special point of the brain is chosen as the seat of the soul. Such crude conceptions can have no value in investigating the connection between physical and psychical processes. What is important for research is the dependence on one another of sensations, ideas, &c., and these can not be thought of spatially. Let us try to understand what it is to think spatially. For example, we distinguish between *seeing* a tree and *remembering* a tree. We note that the two are

situate in different spheres. What do we mean by saying that they are in different spheres? All that is meant is that the elements which constitute them and their connection are not the same. But the fundamental nature of the constituents of both are the same. They are still colours, sounds, spaces, &c. So also what we speak of as the nervous system, the brain, or the cerebral cortex is nothing else than a complex of colours, spaces, pressures, &c., and all that cerebral physiology can hope to do is to establish the connections between the various elements constituting the different composites, such as different objects, egos, brains, and nerves. As Avenarius says: "The brain is no dwelling place, seat, generator, no instrument or organ, no vehicle or substratum of thought........... Thought is no occupant or commanding officer, no other half or side, also no product of the brain, indeed not even a physiological function or general condition of the brain." Also when one speaks of the sensations of another those sensations are indeed not found in the former's optical or physical space; nor are they in any way spatially bound up with the nervous system or brain of the latter, but they are merely mentally added. Similarly when one speaks of his own sensations, then also the sensations do not spatially exist in his head, but his head shares with them the same spatial field.

So long as one regards the ego as a real mysterious entity behind the elements which alone are accessible, he must puzzle himself with all sorts of supposititious problems. He must necessarily involve himself in a dilemma. Either he must set over against the ego a world of unknowable entities, or he must regard the whole world, together with the egos of all other people as included with in his own ego. The former procedure would serve no purpose but writing the unknowables with a capital U, and the latter is not followed even by the solipsist in practical life. On the the other hand, if we regard the ego as a unity constructed for practical purposes, or simply as a more strongly linked group of elements which are less strongly linked to other groups, we no longer meet with difficulties and absurdities of the kind above mentioned. As Lichtenberg says, "we know only the existence of our sensations, ideas and thoughts. We should say *It thinks*, just as we say, *It rains*. It is too far to say *cogito*, if we translate *cogito* by *I think*. The assumption or postulation of the ego is a practical necessity." The practical unity of the ego is neither sharply defined nor

unalterable. As I remarked before, the important thing is not the ego but its content. Every individual is continually striving to alter the content of his ego. That which serves to conserve this content is continuity, and it is this that gives the illusory idea of identity. Even when the ego ceases to have sensations, &c., that is to say, when it dies, only the elements do not occur in their customary mode of association. But the content of the ego, barring a few worthless personal reminiscences, is not lost. For it is not merely confined to the individual. As I explained in my article on Palingenesis (*Karmaphala*) it remains preserved in others even after the death of the individual. Because the elements which constitute an individual are more strongly and closely knitted among themselves than with those which constitute other individuals, he imagines himself to be an indissoluble unity independent of others. When the content of an ego is of sufficiently wide importance, it generally breaks through the shackles of the individual, engrafts itself on others, and pursues a universal super-personal life. It is this co-operation in the welfare of the many that contributes to the greatest happiness of the artist, the discoverer, the social reformer, and so forth, while the narrow-minded Philistine does not possess the strength of character to grasp what it is to enjoy a reputation after death. The Blessed One says: "The man whose heart is set on the dissolution of individuality feels cheerful, happy and elated, like a mighty man who has swum across the swollen Ganges unhurt to the opposite bank."

It is contended by some that ethical life would be impossible without admitting the existence of an eternal self. But we say that even if there were an eternal transcendental self, it could be of no value in ethical considerations. Being an eternal spiritual principle the eternal self must necessarily transcend all time. But ethical life is concerned with empirical wants and aspirations which are all time-processes. Can the self-same eternal self be enriched by acts of virtue or impoverished by vice? Repentance and remorse are of value because they imply a change of character and therefore of personality. But if the eternal self, or the noumenal self, as it is called by some, is always the same, can repentance or remorse be possible for it? It is only in conformity with our view that repentance or remorse becomes possible and valuable. For the principal

thing for us is not the 'I' but the content. And it is a change in this content that is sought after in repentance. Man's moral consciousness has sprung from his relationship to other individuals. It has not its roots in metaphysical possibilities. Must morality be given up if there is no ego independent of the body? Spinoza thought better. He has said: "When one says that this or that action is due to a soul, independent of the body, he does not understand what he says, but endeavours to hide his ignorance of the true cause of that action by fine words."

P. LAKSHMI NARASU.

OUR NATIONAL GAMES.

II.

AT a time when the trumpet of social reform and progress is sounded from one end of the globe to the other, when the young and old alike are drawn by the whirling wheel of modern industry, when new nations rise from the bosom of the broad ocean awakening the slumbering ones to renewed life and activity, when, in short, the watchword of the hour is for each to stand to his guns in the approaching warfare of commerce and industry, he who bemoans the decline of time-honoured national institutions will be looked upon as an anachronism, if not an intruder. Yet these votaries of reform fail to perceive that progress, if it is not to be evanescent, should be worked on national lines. They forget the commonplace maxim which even the merest child knows, that for a long jump we should retrace a few steps; they forget that "all work and no play makes Jack a dull boy." Standing as far apart as the two poles, work and play are yet the ends of the same axis. If the one helps to advance the material, the other tends to develop the physical and moral phase of society. Though this sounds a truism to the social philosopher, yet the common folk hold close to the conception that play is play and work is work; that they belong to two irreconcilable departments of life, with no bearing on each other. Many a parent have I come across, sincerely anxious about the welfare of his child, praying to the Almighty that his young one may become the bread-winner of the family, nipping all idea of play in the bud, nay, applying the horsewhip to the young backs for snatching up a few moments of relaxation. Happily such misconception is slowly giving way to a more rational theory. There will dawn a new era in Malabar, when the people recognise will that there is more in games than what they have dreamt of in their philosophy.

In a previous paper I have endeavoured to sketch the outlines of the nature of games in general, and peg the plot they occupy in Malabar. I have defined their chief characteristics and have suggested a classification. I shall now deal with each class in some detail.

I. PHYSICAL GAMES.

In common parlance, physical games are regarded as games proper. It is so because they are the more primitive forms of

amusement enjoyed and capable of being appreciated by an infant society. Witness the games of children. Most of them come under this head. Infancy is the age when spontaneous activity has full play. Look back at the origin of physical games, we trace in them the innocent manifestations of the means adopted by primitive man, as an intelligent animal, to live through the onslaughts of the surrounding omnipresent and everchanging creation. The principle of imitation and reproduction is immanent in the very infancy of man, and supplies the basis for many a later development. The characteristic features are so fully displayed in military games, that we shall give them the lead.

While dealing with masculine military games, the prominent idea which rises in our mind is that of a *Kalari* (കളരി) or Gymnasium. This is not an institution peculiar to Malabar. What place it held in the ancient Greek and Latin civilisations is too well known to need mention. In the early days of mankind physical strength and skill constituted a wealth more valuable than cattle or corn. In the heroic age all education centred itself in the acquisition of physical strength and military skill so much so that the *kalari* where these were acquired has become a byword for school, and that signification it holds to this day. Before we proceed further, it is therefore necessary to look into the constitution of this *Kalari*. In doing so, we get a peep into the condition of our ancient family organisation.

In bygone times, before the wave of Western civilisation spread through this southernmost portion of the Indian peninsula, every boy was bound, after his formal initation into the mysteries of the alphabet, usually done in his fifth year of age, to attend the nearest *Kalari* to study the arts of peace and war. The *âsân* who presides over this institutlon, is revered like a demi-god by the old and young in the villages, and is invested with a power over his pupils, equal to, if not, beyond that of their parents. Secure in his hereditary office he wields a power mightier than the chieftains of the principality. He is the *Guru* of the place, the dispenser of arts and learning—and so of all future happiness and glory.

Scarcely is a boy enrolled in a *Kalari* when the training commences. Here it should be noted that a Brahmin boy is not usually sent there. His vocation lies in the chanting of the Vedas. Those, however, who are not entitled to the privilege, *e. g. Yatrakali*

Namburis attend the Gymnasium. On an auspicious day, after propitiating the family Deity by suitable offerings, and giving the *Guru* his *Dakshina* (presents), the young boy is given the first lessons in gymnastics. A certain prepared oil is rubbed over the body to give flexibility to the muscles and he is to take exercises till he perspires profusely. These first exercises are meant to give adaptability to the various limbs for different postures, dexterity in long and high jumps and endurance in sustained physical efforts. When he has perspired fully, he is required to lie down flat on a mat and the *Asán* begins to pass his hands or feet over the several parts of his body. This is called *Thirumal* (തിരുമ്മൽ). It requires great skill and a strong constitution, ability to hold the breath for a long time to undertake this work. When the operator uses his feet he supports his hands on a rope tied end to end overhead. It is wonderful to see him with this flimsy support standing wholly on the body of the patient and moving his feet swiftly over it without giving the slightest pain. This which goes by the name of *Katchakettu*, (കച്ചകെട്ട്) derived from the pratice of tying a long and narrow sheet of cloth round the waist and which is the only wear during the process, is preliminary to the study of both games and military tactics. This treatment makes the body athletic and strong and removes the torpidity of the muscles and internal organs by allowing the blood to circulate more freely, and for this reason it is often resorted to as a cure by the weak and invalids. Girls also have to undergo this process if they intend to take to dancing and other cognate professions. The season best adapted for *katchakettu* and usually adopted for the purpose is the cold weather *i. e.* after the S. W. monsoon has set in, when (as the saying goes) the *Mâran* (drummer) lays by his drum, and the toads take to the key. So long as one desires to be an athlete or a dancer or a soldier, he is bound to undergo this annually for a few days. When the body has become sufficiently elastic, the young athlete is taught the methods of fencing, balancing, jumping and all those arts of attack and defence which pertain to physical skill.

Among the military games prominence has to be given to *Velakali* (വേലകളി) or mock fight as it exhibits a finished product of physical feat. Originally designed to keep alive the practice of military tactics in times of peace, and, with the gradual decline of the age of militarism continued for the amusement of a patriotic people,

Velakali now finds its place only on occasions of festivals in temples. It is now supposed to be a representation of the great battle between the Pandavas and the Kauravas. It is seen at its best now in Ambalapuzha in Travancore, where it is under the superintendence of Mathur Panicker (മാത്തൂർ പണിക്കർ) a rich landlord who was the hereditary *asan* and minister of the Chempakaseri (ചെമ്പകശ്ശേരി) royal family, which reigned over the Taluq, till subdued by Maharaja Martanda Varma of Travancore. At Trevandram, during the annual Panguny festival Velakalikars assemble from various Taluqs, and Mathur Panicker commands the battalion and leads it to the attack on the Pandavas, who are represented by gigantic wooden images erected for the time in front of Sri Padmanabha Swami temple. Nairs form the battalion, being the class chiefly employed in military service. It closely resembles the modern military review held on important occasions of festivity.

The game commences with a flourish of trumpets and kettle-drums, corresponding to a call at arms in a military cantonment. In a few minutes each house sends forth its men, well armed and equipped to the field. We shall pause for a few minutes here and look at the war dress and equipment of the soldier. Clad in an under-wear of a sheet of long and narrow cloth, tied lightly round the waist in a peculiar fashion reaching only up to the knee so as to leave the legs free, with a triangular piece of red-cloth ornamented with silver knobs and dots, hanging in front of the waist cloth, with a head-dress of red-cloth tied into an elongated knot on the right side and adorned with silver lace, the primitive soldier, half naked in his out-of-date uniform, presents to modern people a spectacle both comic and significant. He wears as ornaments a string of golden beads on the neck and a tie on each hand round the biceps muscles. Caste marks are made with sandal on the forehead, breast and arms and the eyes rubbed with black-dye. His equipment consists of a shield and sword, the former worn on the left and the latter (which is blunt and oftener an imitation now) on the right hand. This completes the figure of a *Vêlakalikâran*.

Now to the game itself. At the call of the trumpet these soldiers living far and near, gather round the flag. A number of pennons large and small of various colours and designs and some made of silver and gold, probably belonging to the various corps in former times, are unfurled and wave beautifully in the evening sun.

The band which consists of the horn, *Kombu*, the clarion or *Kurunkuzhal* (കുറുങ്കുഴൽ) the kettle-drum or *Thakil* (തകിൽ) hand-drum or *Thappu* (തപ്പ്) and *Maddalam* (മദ്ദളം) another hand-played instrument, then begins to sound the mustering tune, and its dissonant din wakens the drooping spirits of these rude warriors. No sooner have they assembled and formed themselves into line, than the march is sounded. The younger ones take the front; the elders keep the rear; and the flagmen form the rearmost line. This mock army is accompanied by animals and birds used in olden times for military purposes, such as swans (അന്നം) oxen &c., made of sticks and cloth. These, borne on shoulders come last. In this array the army marches from its place of encampment (now a banyan tree) to the battle-field (now the front court-yard of the temple). There it makes its stand. In the absence of the opponent in the field, the combat is single-handed. First it performs the tactics of a combined attack moving against the imaginary enemy in full column. Then begin the single combats. Two of the young warriors step to the front, and to the time of music perform various feats with the sword and shield, shew their skill in jumping, fencing, thrusting, and the various physical exercises. They then retire and fall into line. Again, two more warriors take the field and go through similar exercises. At the end all form together into columns and make a march and with shouts of victory move on to the tank. Their frisks and gambols of joy round the tank for a few minutes indicative of the bath which an army takes after the day of battle, close the game, which is repeated daily in temples during *Utsavam* days.

During the palmy days of the age of chivalry in Malabar, this game supplied an amusement to the patriotic sons of the soil which the modern military review with its bright uniforms and glittering panoply, its splendid cavalry and powerful artillery, its waving pennons and musical band, fail to afford. It stamped a force of character, a spirit of self-confidence and a readiness for action on the people which form the life-blood of national existence and supply an incentive to further progress. Who can contemplate the decay of such institutions without a sigh?

Another important military game is archery. Till the discovery of gunpowder and even later, skill in the practice of the bow and arrow was regarded in all countries as a qualification essential to the military as well as the civil population. To the former it

supplied the best offensive weapon, in the field of battle; to the latter it gave means of self-protection; and to all it was a source of pleasure and amusement. What an exciting and contagious pleasure it affords in a chase or what admiring plaudits it raises among the spectators on a shooting ground, they only who are participators in the game can readily realise. The story of the robber king of the forests wielding a wild empire with his skill in archery or of the Black Knight, the strongest knight who ever bore a bow, is eclipsed by the feats of Sri Rama and his brother Lakshmana and those of Arjuna and Karna in the heroic and chivalrous ages of India. In former times when the Swayamvara system of marriage was in vogue in aristocratic families, it afforded a suitable opportunity for the exhibition of skill in archery. The winner was invariably chosen as the bridegroom. The story of how Arjuna won the hand of Draupadi is well known to all readers of Indian romance. Archery reached its climax of development in the heroic age. It was then cultivated as an art, and was to be acquired only from a *Guru*. The mysteries of the art are explained in the fourth or Atharva Veda. It was even believed that certain *mantras* give peculiar efficacy or fatality to the arrows. As we have now different makes of guns and cartridges with various degrees of power and force, the ancients had their different kinds of bones and arrows. Arrows of fire (ആഗ്നേയം) of air (വായവ്യ) of water (വാരുണം), of Brahma (ബ്രഹ്മ) were really different varieties of them. It is not unknown to us that some weapons in the hands of eminent warriors have done wonderful deeds; but the same in other hands have become innocuous. Similarly, the Kodanda of Sri Rama and the Gandiva of Arjuna and other celebrated bows have made their mark in history.

Archery has long served out its day. With the decay of old national institutions, and with the introduction of modern weapons of superior power, the bow and the arrow have hid themselves in the dark primeval forests, where the aboriginal huntsmen work wonders with them, both in their internecine feuds and in the chase. If any relic of its former glory is to be discovered now, it will be found in the respect paid to it on Vijaya Dasami Day (this day falls annually in September, when the study of letters and arts is begun anew in the year) by sovereigns, and also their use on the occasion of the Holy Hunt or Pallivetta on the ninth night of the festival

in temples. On Thiruvonam day in August, presents of bones are made in Sri Patmanabha Swami temple in Trivandram to the Royal family. Except in these isolated instances, bows and arrows have become as extinct as the dodo.

Far be it from me to appropriate the game of chase wholly to Malabar. It is a diversion common to all races and enjoyed in all countries. It cannot, however, be denied that Malabar, with its picturesque hills and dales, its luxuriant vegetation and primeval forests presents an attractive field to the huntsman. Nor was the adventurous and sharp-witted Malayalee ignorant of the advantages which nature has blessed his country with. No wonder he sought in the cool glades of the forest infested with the grandest and the fiercest of wild animals the elephant, a pleasure, unknown in any other kind of diversion. Originally with bows and arrows, and latterly with rifles and pistols the native hunter bagged his game, and with it came a spirit of self-reliance in dangerous situations and a sense of pleasure in difficulties overcome. That dogs were constant companions of the hunter may be inferred from the very term *Nayattu* (നായാട്ട്) which signifies game with the dogs for hunting. With the development of the modern idea of property in land, the forests ceased to be regarded as *terra naturalis* and began to be gradually enclosed; the financier stretched his greedy hands amidst these untouched spots and reserved them for revenue and public purposes; the servants of the Sirkar enforced the game laws and protected the monopolies. All these added to the spread of ever-increasing population opening up new habitations and pastures, cut short the field of the huntsman and the languid torpidity into which a policy of *laisser-faire* has led a once energetic and venturesome nation, has cooled the very embers of the enthusiasm in such exciting and active games.

The minor games under this head need not detain us long. The *Gusti* or fencing, the Vâlêru or games with rapiers, the *Kondoti* or winning the ball, the Kavanayêru or stone-throwing, the *Kayyankali* or boxing and the *Kasarath* or gymnastics are games complete in themselves having peculiar characteristics; but, at the same time it cannot be denied that they either form the elements of serious games already referred to or are the necessary preparations for participating in them. As instances of the former we may reckon *Valeru Kondoti*, or *Kavanayeru*; and of the latter, *Kasarath Gusti* and *Kayyankali*.

Valeru is a game in which rapiers or small swords are thrown and caught. The number of rapiers handled at one time is never less than three. The larger the number the greater the dexterity of the performer. He uses both his hands in the game and takes his stand at one spot. A big drum (ചെണ്ട) and cymbals supply the music for this game. In addition to the above he exhibits the methods of wielding and flourishing the swords, jumping in various attitudes, passing through rings and other acrobatic feats.

Kondoti is a game in which there are two opposing parties, each containing an unequal number of men who are more or less matches They stand at a distance, and as soon as both parties are ready, one from the right hand party takes a small ball in his hand and walks into the arena. At the same time a match from among the other side advances towards him to take the ball by force. Soon they join in close combat. Great skill in fencing and throwing is displayed here. At length one succeeds. Then the ball is taken by another and from the ranks of the opposite party a combatant is selected to wrest the ball from him. In this wise the game continues for a long time until the party which gains the ball is declared successful.

Kavanayêru is a game of throwing rockets of stones. In former times, it was useful in warding off the attacks of enemies from a distance. The stones are usually made of hardened clay; metals and other hard substances are also not uncommonly used. The stones are tied to a pretty long thread and after a number of wavings to gain force is shot in the direction required. Should it issue out of an expert hand, it is sure to hit the mark. What in modern warfare is served by bullet shot, the *Kavanayêru* supplied in olden days. It required a good deal of practice and precision. The man who shoots a stone and hits the stone that is shot from the other side cannot but be admired.

Kasarath (gymnastics) in which is included all the feats of the acrobat is too well known to require any lengthy description. The primary object being to develop the various muscles of the body, gymnastics serves also the purpose of a diversion. The various feats of balancing, jumping, crawling on the ground, walking on hands and somersaults are familiar to the modern circus-going public. *Gusti* or fencing differs little from that which obtains in other countries. It is essentially a game played with hands and legs. A knowledge of the various vulnerable positions of the legs and hands, the methods

of attack and defence and the counter moves have to be acquired by practical experience from a *Chattampi* (ചട്ടമ്പി) or drill-master. Success in the game consists in levelling the opponent to the ground. This, as well as Kasarath, from their very name, suggest a Mahometan origin, and as a matter of fact they are largely practised by Pathans.

Kayyankali is a violent game It possesses all the risks of an ancient duel—only no weapons or horses are allowed. The combatants should only use their fists in the attack. As in Kondoti the players form two opposing parties. The number in each party is equal and well matched. On both sides stand spectators. When everything is ready, one man issues forth from the ranks of one party and advances to the middle of the field. He does so with certain measured steps pertaining to the technology of the game. At once his match from the opposite party goes out to meet him with the same measured steps. So far, this game bears close resemblance to *Kondoti*. When the opponents have met they come to blows. Blows and counter blows, fists and counter-fists constitute the game. The left elbow supplies the shield and the right arm the weapon of attack. If the match is good no single blow will fall on the opponent, however well aimed. It not unfrequently happens that when amateurs play the game some blow hits on some vital part and kills the opponent. In the hurry of the game everything else is forgotten and the spectators stand dumb in expectation of the final result. Each party shouts at the victory of their champion, which is indicated by the falling of the opponent to the ground. Again, another couple continue the game, and in the end the victorious party wins the prize and applause of the spectators.

Notwithstanding the decay of the martial spirit which originated and encouraged them, these games have yet a currency in Malabar. I have classed them as martial games, not only because they belong to such a period, but also because they served to keep alive a spirit of heroism and a knowledge of the tactics useful in the field of battle.

Before quitting this field of masculine military games, a notice of a surviving military game *Ochirakkali* (ഓച്ചിറക്കളി) will not be out of place. Ochira is a low sandy tract of land near Krishnapuram in Karunakapalli Taluk, Travancore, which once belonged to the Kayankulam Raja. Annually on the first two days of Mithunam

(the middle of June) there is celebrated a mock fight between the two *Karakars* in the neighbourhood, and is followed on the next three days by a fair. This celebrated gathering attracts a number of tradesmen from far and near, who erect temporary shops and sell their wares on the open ground, which was once a battle-field. Till recently the game consisted of real fights with shields and swords and *Kavanayeru.* Very often quarrels arose and serious accidents occurred. It was during the administration of the late Sir T. Madhava Row that the use of offensive weapons and *Kavanayeru* were prohibited. Since then, the fight has become actually a show. It now more or less resembles the *Velakali* which has already been described, with this difference, that there are two opposing parties in the field. They stand on the two banks of the canal which divides the field and play with their swords and shield. On the first day the game is held in the forenoon and on the second in the afternoon. I have not been able to obtain reliable information regarding the origin of this customary celebration. There is no doubt, that it is in commemoration of some celebrated fight in ancient days.

M. RAJA RAJA VARMA RAJA.

(To be continued.)

JAINA CENTRES IN SOUTHERN INDIA.

FEW—even among educated persons—are aware of the existence of Jainas and Jaina centres in Southern India; fewer still have any definite knowledge about their language, manners, customs etc. It was only when, incidentally in the course of a conversation, most of my friends disclosed their utter ignorance of Jainas and the places where they lie scattered in this Presidency, I was induced to write a short paper like the present one on the seats of the relics of an old and once powerful race who have enriched Indian literature and brought civilisation in several other ways. At the present time, however, the Jainas have almost been forgotten and they are all very poor except perhaps in the Bombay Presidency where many of them are opulent and flourishing traders.

The Madras Presidency discloses vestiges of Jaina dominion almost everywhere and on many a roadside a stone *Tirthankara* standing or sitting cross-legged is a common enough sight. The present day interpretations of these images are the same all the Presidency over. If the images are two, one represents a debtor and the other a creditor, both having met on the road and waiting to get their accounts settled and cleared. If it is only one image, it presents a debtor paying penality for not having squared up his accounts with his creditor. Even well-informed persons oftentimes mistake a Jaina idol for a Bauddha one. In fact, Jainas and Jainism are little known.

The first and foremost of the Jaina settlements in Southern India is *Sravana-Belgola.* Its original name was *Kalbappu* (old Kanarese) which is Sanskritised into *Katavaprakshetra.* The modern name Belgola takes its origin from a large tank situated in the heart of the town. The place is in the Channarayapatna Taluka of the Hassan District in the Mysore State and is reached through the Arsikere railway station *via* Channarayapatna wherefrom it is only eight miles. The fine, small town is situated between two hills, a furlong from each other. The hill to the north is called Chandragiri and is the smaller of the two. This hill contains on its summit the most ancient temples and monopolises all the oldest inscriptions. Of those temples, the oldest is the *Chandragupta Basti*[1] and next in importance is the *Parsvanatha*

1. A basti is a temple having a Jain Tirtankar seated cross-legged with hands resting one over the other on the ankles.

Basti which contains the beautiful inscription called the *Mallisena* epitaph.[2] Kattale *Basti*[3] comes next and has some very fine pieces of sculpture and fretwork in stone. There is also a huge unfinished statue of *Gommatesvara* on the top of this hill. A large portion of its several inscriptions records instances of the religious suicide known as *Sallekhana* committed by pious Jainas at various times. The earliest such event is recorded in the so-called *Bhadrabâhu* inscription. There has been a great deal of learned discussion regarding the identity of the above martyr. A flight of steps recently cut into the rock itself leads to the top of this hill.

The southern hill is, as already stated, larger than the northern one and is known as Vindhyagiri; it is about 400 ft. high and is a bald, granite rock, somewhat like the one at Trichinopoly. This hill too has a fine flight of steps also cut into the rock itself. It is on the top of this hill that the famous megalithic statue of *Gommatêsvara* is set up. This gigantic piece of sculpture was executed in the reign of the Ganga king *Râchamalla*, by his military commander *Sri Châmundarâya* (A. D. 977—84, last quarter of the tenth century). It measures 62 ft. in height and the following are the measurements of the various parts of the idol as taken from Mr. Rice's "Sravana Belgola."

	Ft. in.
Total height	50—0
From the bottom of the ear to the crown of the head, about	6—6
Length of the foot	9—0
Breadth across the front foot ...	4—6
Length of the great toe ...	2—9
Half girth at the instep ...	6—4
Half girth of the thigh ...	10—0
From the hip to the ear ...	24—6
From the coccyx to the ear ...	20—0
Breadth across the pelvis ...	13—0
Breadth at the waist	10—0
From the waist and elbow to the ear ...	17—0
From the arm-pit to the ear ...	7—0
Breadth across the shoulders ...	26—0

2. Published in Ep. Ind. Vol. III,
3. Dark-basti; because it has in front of it the Parsvanatha basti which cuts off all light from outside.

		Ft. in.
From the base of the neck to the ear	...	2—6
Length of the forefinger	...	3—6
Length of the middle finger	...	5—3
Length of the third finger	...	4—7
Length of the fourth finger	...	2—8

Surrounding this image which stands in the open air is the *Sutalaya* constructed by Ganga Raja, a military officer of the Hoysala king Bitti Vishṅuvardhana. Besides this chief temple, there are two or three minor shrines on this hill.

Between the two hills on the western end of the town lies the large and beautiful tank of *Belgolatirtha* (Kan. Bel=white, kola=tank) or *Dhavala Sarovara*. All around, this tank has graceful steps, though, of course, the water is mossy and dirty.

On the eastern end of the town is a big basti called the *Bhandara basti*. It is a fairly big temple dedicated to all the twenty-four *Tirthankaras*. In this temple, there is a stone which bears an inscription recording a compact entered into by the Sri-Vaishnavas and the Jainas at the instance of *Bukkaraya* of the Vijayanagara dynasty. The compact is for their mutual protection against the attacks and inroads of the Lingayats. When any damage is caused to any temple, Sri-Vaishnava or Jaina, by the Lingayats, the compact provides that the damage must be made good by sums of money raised from both. They must conjointly collect sufficient money also for employing men to guard the temples of both. The above document is locally known as the *Sasana* of Ramanuja.[4] Opposite to it and situated at the end of a lane is another temple called the *Akkana basti*. It is a pretty old one of its kind. To the right of the Bhandara basti is the mutt of the Jaina Swami whose jurisdiction extends as far north as Delhi. The name of the present Swami is Charukirti-panditacharya. This mutt contains a library of Jaina manuscripts.

The bulk of the population of this pretty little town is of the Jaina faith. These Jainas belong to one or other of the four *varnas* (castes). The Jaina Brahmans are as good as the Hindu Brahmans in point of cleanliness and habits. Those that make the *puja* etc., and officiate as priests in the temples are Brahmans and are called *Indras*.

4. This is dated 1290 *S.* corresponding to kilaka samvatsara.

The exclusive occupation of the Jainas of this place is the manufacture of domestic brassware utensils; the vessels that are ushered into the market throughout the Presidency under the name of "Mysore Vessels" are all made here and have earned for themselves a name for durability and good workmanship.

The next places of interest are Kârkâla and Yênûr (Vênûr) situated in the South Kanara District. They have each a colossal image of *Gommatesvara*; the one at Kârkâla is 41½ feet high and was erected by the chief *Vira Pandya* in 1432 A. D.; that at Yênûr measures 35 feet and was set up by *Timmaraja* in 1604 A. D. This Timmaraja was a descendant of Chamundaraya who set up the colossus at Belgola. Pictures of these two images and that of the colossus at Belgola are given in Epigraphia Indica Vol. VII, to illustrate an article by Dr. Hultzsch.

The fourth place of Jaina antiquity is Humcha (Pattt Pombuchcha of old inscriptions). Besides the usual bastis, this place contains a mutt which is the seat of another Jaina Swami.

Dvarasamudra, the capital of the Ballala (Hoysala) kings, which is more familiarily known as Halebid, is situated twelve miles west of Banavar Railway station on the S. M. R. line. This was once a famous place of pilgrimage with Jainas. After the conversion to Vaishnavaism of Bittideva (Vishnuvardhana) the place became one of secondary importance and has, at present, a very fine basti which is still visited by numbers of pilgrims who go to visit Sravana-Belgola.

Mudbiduri, in South Canara, is another important Jaina place. The Jaina structures of worship are unique in their style of architecture. They resemble the buildings of the Northern Jaina temples. Wood plays an important part in these buildings. There are very fine specimens of wood carving in these temples.

Besides the temples, there is here a series of tombs of Jaina monks. They are also constructed in that peculiar style which Ferguson considers distinctly northern.

Coming now to the Tamil districts, we find two Jaina centres of note near Tindivanam in the South Arcot District. The more famous of the two places is Sirranur. It is nine miles to the due west of Tindivanam and is almost midway between it and the famous fortress of Gingee. This little village is situated, in the

characteristic Jaina fashion, on a craggy (hilly) tract. It contains a big Jaina temple dedicated to *Pârsvanatha* and the other *Tirthankaras*. This temple seems to have suffered many reverses at the hands of the opponents of the Jaina faith: for, only the platform on which the temple is reared is very old, constructed of granite. The superstructure is all brick and chunam. The much damaged base of this temple contains some faint and half-erased Chola inscriptions. The temple gate is surmounted with a fine small *gôpuram* which is recorded to have been built by a very recent Maharajah of Travancore. Sirranur is the headquarters of a Jaina Swami, who is the spiritual head of the Tamil Jainas. When I visited the place, a certain Lakshmisena-bhattaraka was the Swami; I now hear he is since no more and that a little boy has succeeded him. The temple received extensive repairs in the regime of the old Swami who utilised the bulk of his earnings for this purpose. The mutt has a small collection of manuscripts. Besides the temple, there are two or three spacious *chatrams* intended for the accommodation of pilgrims who visit the place annually on the occasion of the chief festival of the temple. Jainas form the bulk of the population of this village also. They do not appear to be prosperous and they support themselves by resorting to cultivation and other modes of manual labour. The Jainas of this village do not at all compare favourably with their brethren of Belgola in cleanliness and other respects. There is a Roman Catholic Church in its vicinity, busy proselytizing the Gentoos and establishing a small convert settlement.

Four miles to the south-west of Tindivanam is the second place mentioned above—Perumandur. It has three old Jaina bastis with a few inscriptions of the Chola kings here and there. The Jaina population here is small.

Tirumalai near Polur is also an important station; it is in fact one of the oldest Jaina settlements and has very valuable, old inscriptions which, it is a pity, have not been completely examined by the authorities employed for the purpose. The Jaina Swami of Sravana Belgola is almost invariably chosen from the Tamil Jainas of Tirumalai. This shows the ancient prestige of Tirumalai and the nature of the Belgola settlement.

About fifteen miles from Tirukovalur (Tirukkoilur) Railway station is situated the village Tirunarungondai, another important Jaina centre. It is known as Jaina Tirupati. The temple of this

place is located on the top of a small hill about 60 or 70 ft. high. The temple is reached by a flight of broad and beautiful steps which lead directly to the entrance gopuram. The temple is enclosed in a substantial prakara which is at present in a bad state of disrepair. To the north of this hill, there is a natural pond which supplies potable water to the village. The image of this temple is, in conformity with the old custom, carved in relief on a rock and represents Gommatesvara. Apart from this principal shrine, there is a later construction in the same temple and is dedicated to an earlier *Tirthankara*. This temple is a fairly old one. The great Rajaraja I, his son Rajendra Chola I, and Kulottunga I among the Cholas, and Sundara Pandya among the Pandyas figure in inscriptions as donees to the temple. It was of importance even in the days of the great Vijayanagara king Krishnadevaraya who has given rich grants to it. Whatever might have been its prosperity in times gone by, it is now almost in ruins. The two poor remnant families of Jainas are still faithfully clinging to the temple, carrying on the puja etc., with the rent they get from the few acres of land the temple is now the happy possessor of.

There is a tradition current among the Jainas of this village that Manikkavachakar, the Saiva saint, came here to destroy this temple and that, as he ascended the steps, his sight began gradually to fail till at last he completely lost it as soon as he had reached the topmost step. Then, the story goes, he prayed that his sight might be restored to him on condition that he interfered with the Jainas and their temples no more. This is purely the Jaina version of the tale and there is nothing to warrant the above either in the Saiva or in the Jaina works. The poor Jainas of this place also believe that a slab of stone with a badly damaged inscription on it, which is set up at the beginning of the steps proclaims the pitiable fate of Manikkavachakar; in other words, that it is a Jayastamba set up by the Jainas in honour of their victory over the Saivas. The Saivas, of course, hold just the contrary view. But, after all, the fact is that the stone records gifts of land made by Sundara Pandya for the celebration of a festival in the temple, in honour of his visit to it.

The next Jaina place of importance is Depangudi, a village four miles from Tiruvarur (Tiruvalur) Railway Station. It has a big Jaina basti and is an important place of pilgrimage with the Tamil Jainas.

In Mannargudi there is a Jaina settlement with a small modern basti. There is in this place a street of twenty households, the members of which are all engaged in petty trades.

Similarly at Karuntanttangudi, a suburb of Tanjore, there is also a Jaina settlement with a substantial temple of modern construction and a tank belonging to it. Surrounding it, there are a dozen or more Jaina houses.

Besides the places described above, there are many more small villages, most of them situated in the South Arcot District, the Tindivanam Taluk of which monopolising the greater number of them. They need not be detailed here as they are neither important nor ancient.

T. A. GOPINATHA RAO.

A CHAPTER FROM AN OBSCURE AUTOBIOGRAPHY.

IN my fifth year, my father removed to Conjeveram to practise in the court there. The separation from my grandmother was indeed a sore trial. My early impressions of Chingleput are associated with the sound of the bells of the cattle grazing on the hills all round, heard at all hours of the day, and the howling of jackals in the night time. The humble, unpretentious houses, narrow streets, the wild and romantic scenery, these are almost my sole recollections of the place, where the prevailing avocation of the people was agriculture and where there was nothing to rouse the even tenor of life. In spite of these, I love it for its scenery and bracing climate, its quietness and its simple people. But how unlike all this is Conjeveram with its broad streets, busy marts, rich temples, high towers and well-built tanks, where the industries of the people are many and varied, where you always meet minstrels singing ballads in the streets, and jugglers showing their extraordinary skill, where plays are enacted, and feasts and festivals celebrated almost every day of the year, where, it seems, the town was planted for religion's sake, every nook and corner of which has its own particular story and marvel to reveal, and where, in short, there is everything to please the fancy and rouse the imagination of an impressionable child?

I soon became reconciled to my new surroundings, on account of their novelty and greater variety, and on account of my grandmother often coming to visit us and staying for long periods, to my intense delight. And the first incident in the new place that impressed me most powerfully was the *Story of Prahlad*, acted in the open street opposite to our house. The inhabitants of the street subscribed a small sum among themselves, to pay the troupe that acted the play. Every Hindu is familiar with this story, which is as popular as the *Story of Harischandra*.* I give a short outline of the story of Prahlad for the benefit of my English readers :—"In ancient times, there lived a powerful king in India, Hirania by name. He conquered many countries, subdued many foes and attained the highest worldly renown. He became great not only in things that appertain to this world, but great also in goodness,

* For a description of this story, see my "Life in an Indian Village," Chapter XII.

having performed many virtuous deeds, and severe penances. God Vishnu was pleased with him, and asked him what boon he wished for his good deeds. The king answered—"Grant O Lord! that death might not befall me by any living being,—man, beast, bird, worm or anything inanimate." The request was granted, and, having obtained it, the king wished to usurp God's throne, and dispute His supremacy, as did another king of old, who wanted the waves of the ocean to stand still. And the fiat went forth for immediate compliance throughout the land, that the people should henceforth substitute, in their prayers, the name of Hirania for Vishnu, that they should bow to him as their god, and set up his image in temples to worship. It came to pass that, soon after this, the king was blessed with a son, Prahlad by name. The child, who was well-favoured, grew in years, and was put to school in his fifth year. At the first ceremony of initiation, the Brahmin preceptor wished him to invoke the name of Hirania instead of Vishnu's. The child refused to obey. The king, who was extremely sensitive on this question, was enraged at this open rebellion, on the part of his only son. Parental affection immediately turned into intense hatred. Tortures, which human ingenuity could invent, were had recourse to, to compel the child to obey the king's order. Prahlad was taken to the middle of the sea, and drowned there tied to a huge stone. By God's grace, the stone became as light as the dried calabash, which served to float him up to the shore. Then the king's wild elephant was let loose to bury its trunk into the child's tender bosom. But the brute moved by a higher power ran away quite abashed. Then, he was thrown into a pit of fire, which had no effect. Then came a huge cobra to spread its hood and bury its fangs into the body, and that too was of no avail. Discomfited in all these, the king ordered his son to be brought before him, and then ensued the following conversation between them. "You say" said the irate father "that God is omnipresent. Where is the evidence of that? Is he in this pillar?" To which the son.—"He is not only in this vast universe, but even in so much as a span, why, even in the hundredth part of the smallest atom, and in the great mountain Meru; yes, in that pillar, and even in the words that proceeded from your mouth now." "If you do not show him" said the father "in this pillar, at this moment, I will kill you as easily as the lion does the elephant, and cast your tender flesh to be

devoured by birds." The son replied.—"It is not easy for you to take away my life. If He of whom I spoke does not appear, whenever and wherever I lay my hands upon, I will myself take my life away. If, after that, fond of life, I still live, hear this most solemn oath—*I am not His devotee.*" When these last awful words were uttered, the pillar cracked, and from it issued a figure in human body with the face of a lion. Prahlad, on seeing Visanu in this form, danced and wept for foy, praised God in song, and raised his hands aloft in adoration. Immediately, Vishnu seizing Hirania tore him with the nails, and threw him dead. Then pleased with Prahlad's faith, Vishnu asked him what boon he wished. Said the child of five years, on this memorable occasion.—"The love I bore you in the innumerable births I had before was intense. Many more births I still may have, and appear in countless shapes. Grant O Lord! that, even if I should be born a worm, my love for Thee may not diminish, but increase on the other hand." The prayer was granted; Prahlad was crowned king. As the figure of Vishnu was about to disappear, the child hero lighted camphor and ended the performance by singing some sweet verses in praise of God. Just then the streak of light in the eastern sky showed that morning was soon coming, and the audience, about 10,000 in number, roused to the highest pitch of frenzy, when Hirania was killed and Prahlad was crowned king, dispersed to their homes, with gladdened hearts, much pleased with the performance.

Such is the story I heard acted. One reason of its powerfully impressing me was that the hero was of tender years like myself. How much I admired the courage of the child performer, who stood unmoved when goblins and ghosts in strange shapes and with hideous faces approached to terrify him? If *Alice in Wonderland* could influence the children of the British Isles, such as no other book could, how much more this story, with a moral for its object, and religion for its basis, in this land of religion? I remember well witnessing the performance, sitting on the lap of my mother, and remember well too the tears she shed at the troubles and difficulties of the hero, and the curses pronounced by the women, who sat near, on the author of all those troubles, and I shall never forget the joy of the crowd, when they saw the villain of the story perish and the hero crowned.

In my fifth year, I was put to school to learn the Telugu alphabets. The necessary ceremonies were gone through during the

initiation; I was made to go through certain motions and utter the name of Vishnu. I gladly went through all these, with the story of Prahlad still fresh in my mind. My first place of instruction was in the vernacular branch of the Free Church of Scotland Mission School, founded in 1839 by the Rev. John Anderson, the pioneer of English education in Southern India. A year later, I went to the English branch to learn English and Tamil. I learnt Tamil and Telugu under two teachers, who had all the old conservatism of their ancient fraternity, curbed down, of course, by the rules and practices of their English masters. I was, therefore, a stranger to the savage forms of punishment, inflicted in pial schools, and a stranger too to the system of teaching in vogue in those primitive seats of learning, which I described in my "Life in an Indian Village." My masters retained all the antiquated form of the teaching of old; and one thing, in particular, which produced a deep effect, was the ethical side of their instruction. In spite of the fact that we were beginners, we were made to learn by heart moral precepts and poetical verses with short stories imbedded in them. The following is a translation of one of the many Tamil verses, I was made to repeat by heart. "The bamboo, with constant toil bent, will find a place over the crowns of kings. But misfortune will surely overtake the bamboo, about which no trouble was taken. It will wander all over the world, will be handled by the juggler, and thus be laid low." Here is a poetic version of the story imbedded in the verse, with all the embellishments and additions of theTamil teacher, as they were given to me.

THE STORY OF THE TWO BROTHERS.

Behind a cotter's field, there grew a tree;
And from the parent stem had sprouted out
Two healthy stalks, more marked than the rest,
E'en like twin brothers from the self-same womb.
The one was straight and comely to behold;
The other pliant and was bended born.
And proudly said the straight and comely one,—
"See, brother! fair of form I stand and grow
With freedom, but unsightly liest thou,
For passers, when they go, to laugh at thee."
But said the bended one. "Ah Time will show!
The young but bend to conquer in the end."

The cotter came and saw the tall straight one,
Whom he unheeded left to grow at will,
But tended ev'ry day with filial love

And watched, with ardent hope, the bended one,
Whose tender sap obedient ran in forms
Ordained, and daily with his hands, he bent
The willing one to bend him all the more,
While still the straight, that straighter grew each day,
Laughed at his neighbour brother all the more.
But still the other whispered—"Time will show;
The young but bend to conquer in the end."

And came the time, when both had manhood reached,
To go unto the world for man's good use;
And for the brothers came the time to part.
The country's king the bended one secured.
A lowly wand'rer, for a trifling coin,
The other took, who parting said once more,—
Unto my master's humble cottage home
I go to be exalted there; but thou
Unto the royal household but to serve,"
But still there came the answer—"Time will show;
The young but bend to conquer in the end."

And years sped by, but thus it chanced they met.
It was when all were merry in the land,
When, on a litter, whose bent staff, all decked
With flow'rs and knobbed with gold and resting on
Their fav'rite bearers dressed in cloths of gold,
The king and queen passed through a joyous crowd,
And saw the sight of him, that, standing on
A tall straight pole, his wondrous feats performed.
And that same one, that bore the heavy weight,
Espied his brother in the litter's staff,
The brother of his childhood days and said—
"Here underneath the juggler's feet I stand,
While proudly o'er the crowned head you sit.
And to the proud unyielding—Time has shown
The young but bend to conquer in the end."

I am tempted to give another story as related to me by my Telugu master in illustration of the saying—"Avoid evil company—else, beware of the cow with the block of wood." This is how my venerable teacher of more than sixty years narrated

THE STORY OF THE TWO SISTERS.

Have you not heard of the story of the cow and the log of wood? You have many a time seen vicious cows going about with blocks of wood suspended from their necks, to prevent them from leaping over hedges and entering corn fields to graze there. Now,

in a certain village, there were two good friends, who were neighbours and who each owned a cow. The one was lean, the bones, every one of them, were clearly visible, the points and edges protruding out. Her sister, the other cow, was well-featured, strong and fat. The lean cow, after the day's grazing, went in the evening to her master's house, and, after supplying him with whatever milk she was able to give, ate of the scanty provender supplied to her in turn, and rested in the shed for the night. But not so, the other. Every night, after the village went to sleep, she left her master's shed, entered the fields of corn, grazed there to her heart's content, and returned before daybreak to the shed. There was wailing and lamentation among the owners of the fields in the village, and they knew not which beast it was that committed this nightly havoc. One night, the lean cow, not having had enough of straw given to her, resolved, in an evil moment, to follow the other cow to the fields. It so happened that, on that very night, the villagers, unable any longer to endure this nightly spoliation of their fields, set together to find out the culprit, and were secretly watching the fields in a bush. And lo! when these two cows entered the fields the villagers, who lay in wait, pounced upon them with sticks. The fat one immediately leapt over the fence and easily reached the master's shed, while the other intruder, unable to escape, was caught, severely beaten with sticks, and tied securely to a tree for the night. The morn arose, and fresh troubles awaited the unfortunate cow. The villagers quarrelled with her master and said that it was his cow that all these days damaged their fields, whereupon the master, unable to bear their abuse, belaboured her soundly, and thenceforth sent her out with the heavy log of wood, which constantly hit her knees and prevented her from walking freely. Look on this, my children! and remember what troubles were brought upon by a day's friendship with the evil one."

The above two are samples of the stories narrated to us by our Telugu and Tamil masters. Such teachers imbued with the spirit of old are fast passing away. I would forego many a good thing of the west, for which India is deeply grateful, but never this class of teachers, who so powerfully influenced young minds, and their ethical precepts and verses driven into the hearts of their pupils with force and feeling, and enlivened by stories of every day observation. There are hundreds of stories of this description, and it would

be well, if any true patriotic Indian were to collect them, giving some in simple verse and some in good plain prose, for the benefit of the children of this country.

Tamil is my mother tongue, but my father insisted on my continuing my Telugu studies. This of course was irksome to me, but an incident happened, which, instead of making the additional study annoying, made it a pleasant task. One day, while I was going to school from my house, I chanced to meet an astrologer on the way, a street soothsayer, around whom a number of people congregated to know their future. I was curious to know something of my future too. I had with me three pies (a fourth of a penny); this I put into the hands of the man skilled in palmistry. My right hand was stretched out. The fortune-teller traced the lines on the palm with a reed, for he was a low casteman, who could not touch high caste Sudras, quoted some verses and said—"You will be master of three languages, Tamil, Telugu and English, and you are destined to occupy the place of Dubash* in the Madras High Court." This place was considered to be the one of great honour in those days, Need I say that this prophecy became fulfilled nearly forty years later. From this time forward, I attended to my Telugu studies without a demur, and the knowledge I then gained stood me in good stead when, I was first appointed to this place. In this connection, I cannot but recall to mind another prophecy, which came to be fulfilled much to the wonder of Col. Meadows Taylor, not inaptly called the Sir Walter Scott of India, who recounts it in that most interesting book of his—*the Story of my life.* Meadows Taylor was the political agent of the Native State of Shorapoor, during the minority of the Rajah. The Rajah's horoscope was cast by the Brahmin court astrologer, who noted that the Rajah *could not live to complete his twenty-fourth year.* This hororcope was safely secured with the state records, and some years later, when Taylor went to visit the Rajah's mother, who was seriously ill, the horoscope was brought and sealed with the state seal, as well as with that of Taylor's. The secret was known only to the Rajah's mother, the State astrologer and the Colonel. In due time, the Rajah came of age and was installed as ruler of the state. Shortly after, during the Mutiny, he took a leading part and was condemned to death. The Rajah was now about twenty-four years of age. The rest is

* A corruption of the Indian word *Dwibhashi*=man of two languages—Interpreter.

told in Taylor's own words. "A few hours after my arrival (at Shorapoor), the old Brahmin priest (astrologer) came to me privately. 'Do you remember Sahib,' he asked, 'What I once told you?' 'Perfectly' I answered. 'You said the Rajah would not live to complete his twenty-fourth year, and that he would lose his country.' 'Yes Sahib,' he went on, 'part of the prediction is already fulfilled, and the rest will surely follow; it is quite inevitable' 'We cannot say,' I continued, 'what may yet happen. The proceedings are not over and the Resident and I are both determined to save the Rajah's life if we can'." The Rajah of Shorapoor was sentenced to death, but the Resident commuted the sentence to transportation for life, which sentence was still further reduced to four years' imprisonment in a fortress near Madras, namely, Chingleput. The astrologer was sent for and informed of this by the Colonel, who writes—"The old man shook his head sadly. 'Till the last day has passed to which the calculation extends I have no hope,' he said. 'It cannot be wrong and but little time remains.'" At last the Rajah was removed to his destination from Hyderabad where he was a prisoner. And at the place of the first day's encampment, in the evening, he shot himself dead. Writes Meadows Taylor,—"It was indeed a strange accomplishment of the prediction. In a few days more, the Rajah would have completed his twenty-fourth year, and now he had died by his own hand.........The Rajah was dead and his kingdom was lost, ere he completed his twenty-fourth year, and the grim old prophecy, deduced from the horoscope, was literally fulfilled." Of course as a Hindu brought up to believe in astrology, I cannot write in the strain that Meadows Taylor writes. But I shall say this, that in this land of miracles, wonders never cease.*

In December 1862, I saw for the first time in my life, two Europeans, white men of whom I had heard so much and so often from my grandmother. I was then reading in the class above the lowest. Preparations were made in the school to receive them suitably. The two Europeans were the Rev. Mr. Campbell, the Principal of the parent institution in Madras, belonging to the Free Church of Scotland Mission, and another, a boy Missionary, lean and tall, but with the healthful hue usually observed in

* For an interesting fulfilment of an astrologer's prediction, see my novel of *Padmini*, page 107.

Europeans during their griffinage. I well remember what took place. It was the season of the chrysanthemum, the favourite flower of the Land of the Rising Sun, as the lotus is of this Land of Perpetual Light. The boys were assembled in the school hall. The two Scotchmen stood in front of a table. The headmaster and the teachers, one after the other, put on the garlands of the chrysanthemum upon the Rev. Mr. Campbell. And when it came to the turn of a Mohammedan boy, Yusuff Khan by name, the bully of the school, a tall powerful youth, the boys were anxious to know what he would do. About ten persons have by now directed their attention to the senior Missionary. Yusuff Khan went up straight to the youthful Missionary and garlanded him. The Missionary smiled. The other boys followed suit and about twenty garlands went to the share of the junior Missionary. When it came to my turn, I was about the last, the young gentleman condescendingly bent down a little to accept my garland. I felt exceedingly proud of this, for I not only saw face to face two white men, but came in personal contact with one of them. Little did I dream then that this Scotchman was destined to work the greatest influence on my life and character, and little did I dream then that, about four decades later, it would be my happy privilege to work for the perpetuation in bronze of the noble figure that stood before us; and often as I pass by the statue, the pose of the figure on the pedestal takes me back to this day of the incident of December, 1862.

I continued to read in the school at Conjeveram till the end of 1865. My time was divided between the school, where I was taught the Christian religion by an Indian convert, who denounced idolatry and preached against Hinduism, and my home, where I was made to observe rigidly the everyday observances of an orthodox Hindu family, to accompany my parents to temples to worship the idols there, and to join at home a religious* brotherhood to sing sacred songs. Like the oscillation of the pendulam, swinging from one end to the other, with no stopping in the middle, my life was spent at this period with no possible compromise in my mind between the two. How this affected my religious belief, it would be my endeavour to show in some future chapter.

* For an account of this religious brotherhood, see 'Life in An Indian Village,' Chapter XIV.

The subjects taught in the highest class in Conjeveram were the English Fifth Reader, the Elements of Geography, a Manual of Grammar, Arithmetic, the first five propositions of Euclid and the Gospel of St. Mark. This little learning became a dangerous thing. I became conceited, and felt over-confident of my abilities. In spite of my father often reminding me of my little learning, I assured him I was sure to be admitted to some higher class of the school, which my father intended taking me to. To my utter disappointment, I was found *not fit* for the class I was intended for. And my father often taunted me for years afterwards with the above words, of course to put down my conceit. The case of one of England's great thinkers was exactly the reverse. John Stuart Mill read before he was eight, Robertson's, Hume's and Gibbon's histories, Rollin's Ancient History, Plutarch's Lives, Burnet's History of his Own Time, Millar's Historical view of the English Government, Mosheim's Ecclesiastical History, Mc Crie's Life of Jonn Knox &c., and a host of other books before he was fourteen. Writes Mill in his Autobiography. "I had no notion of any superiority in myself; and well was it for me that I had not. I remember the very place in Hyde Park, where, in my fourteenth year, on the eve of leaving my father's house for a long absence, he told me that I should find, as I got acquainted with new people, that I had been taught many things, which youths of my age did not commonly know; and that many persons would be disposed to talk to me of this, and to compliment me upon it. What other things he said on this topic I remember very imperfectly; but he wound up by saying, that whatever I knew more than others, could not be ascribed to any merit in me, but to the very unusual advantage which had fallen to my lot, of having a father who was able to teach me, and willing to give the necessary trouble and time; that it was no matter of praise to me, if I knew more than those who had not had a similar advantage but the deepest disgrace to me if I did not. I have a distinct remembrance, that the suggestion thus for the first time made to me, that I knew more than other youths, who were considered well educated, was to me a piece of information, to which, as to all other things which my father told me, I gave implicit credence, but which did not at all impress me as a personal matter. I felt no disposition to glorify myself upon the circumstance that there were other persons who did not know what I knew; nor had I ever flattered myself that my acquirements, whatever they might be, were any merits of

mine: but, now when my attention was called to the subject, I felt that what my father had said respecting my peculiar advantages was exactly the truth and common sense of the matter, and it fixed my opinion and feeling from that time forward."

In Conjeveram, there was more of the knowledge of the East which I imbibed slowly, and very little of the West, for my masters were not men of high culture and education, but in Madras there was more of the West dawning upon me, when my father took me there to be placed under instruction. To me the lines of the poet have a special significance—

"And not by eastern windows only,
When daylight comes, comes in the light;
In front, the sun climbs slow, how slowly!
But westward, look, the land is bright!"

T. RAMAKRISHNA.

GUMS.

I HAVE often lamented over the waste to which various kinds of raw material of the forests of Travancore and Cochin are allowed to run for want of capital and enterprise. In other climes, these economic products are turned to the best account by using them in arts and manufactures. In my paper on the Travancore forests, I pointed out that all the requisites to manufacture paper existed in the country. I demonstrated how and from what materials belonging to this particular State wood-oil, iron and saltpetre can be obtained. In the same manner I proved how tannin and dyeing materials, gums and resins, besides a score of others can be obtained both in the plains and in the recesses of the forests. It is not my present object to traverse over the whole ground again. I propose to deal with the simplest of the lot, *viz.*, gums, and show how shortsighted we are in neglecting to develop the resources of our country.

I must, at the outset, point out the mistake that is generally made in treating gums and resins as one and the same, on the ground that both of them exude from the internal tissues of trees and plants and appear on their barks. The great distidguishing test is that the former is easily soluble in water or becomes bloated according to the preponderant constituents of Arabin, Cerasin and Passorin. It should be explained here that the chemical property of Arabin is to dissolve easily and readily in water and those gums that contain the largest quantity of it are made use of for adhesive purposes. I may mention here that the word "Arabic" in the expression "Gum Arabic" is from "Arabin," and is not derived from the word "Arabia" as is generally supposed, though large quantities of gums are exported from that tropical region. Cerasin only swells up in water without dissolving. Passorin is partly soluble in water. But when the two last mentioned chemical components are boiled with a small quantity of alcohol or some other equivalent, they completely dissolve and become Gum Arabic. On the other hand, resins are not at all affected by water. They only dissolve when a small quantity of alcohol or ether or some other chemical substance is added. Another peculiar characteristic of resins is that they burn with a bright or swarthy flame, and this is not a characteristic of gums.

There are two ways in which gums are obtained. In the first place, Nature herself assists the collector. When the bark of a tree cracks owing to excessive heat, the numerous cells in it also give way and the fluid that exudes from them is gum. It is also obtained by making wounds on the barks of trees. The natural form of gum is stalactic, or in other words, is in the form of a hanging cone. At times it is in thin streaks or tears. The cleavage of gum resembles that of sea-shells. Its colour ranges from pale-yellow to brownish-red, and the former generally rules out the others. Its surface is generally smooth and translucent. When perfectly dry, it can be easily powdered.

In collecting gums, care should be taken not to mix the substance with pieces of bark, sand &c., left on it by white-ants in building up their layers, and other extraneous matter. In this country the little gum that is brought into the market is in the shape in which it is collected, mixed up with rubbish, or in the shape into which the pieces are pressed together. In order to obtain a marketable commodity, it is necessary that the gum collected should be dissolved in water and purified. This may be done in two ways, either by putting the substance in water and exposing it to the sun or by boiling it up. When it is well dissolved, the fluid should be filtered carefully with the aid of a cloth whose texture is not very close. The mucilage thus obtained may either be retained in the purified condition or it may be condensed and formed into cakes. The process of condensation may be formed as before either by exposure to the heat of the sun or by the action of fire, but the natural process of evaporation caused by the sun produces the best material. Whether the gum is sent to the market in its crude state, or in a purified condition, the supply must be constant, and the quantity should not be less than five tons a year to guarantee success. In collecting gums and other allied substances such resins, gutta, kino &c. may also be collected in order to make the business paying. Perhaps it is a fact not known to many of our readers that gums are taken in large quantities from India to Europe and sent back in the shape of sparkling mucilage in beautiful crystal bottles.

The following are the uses that are generally made of gum :—

(i) For Medicinal purposes as (*a*) Medium, (*b*) Auxiliaries, (*c*) Principals.

(ii) For giving lustre to silk wares.

(iii) For dyeing.

(iv) For making water-colours.

(v) For making colours.

(vi) For printing calico.

(vii) For sizing paper.

(viii) For adhesive purposes.

In speaking of these, I do not urge on my countrymen to prepare gums to be used for all these purposes. I should be quite pleased if they will only satisfy the local demands *viz.*, for adhesive purposes which are not inconsiderable. It is a thousand pities that, as in the case of other raw materials, this article should be taken to Europe in the condition in which it is collected, and sent back in a pure state.

The following are some of the trees from which gums can be collected without much difficulty. The first list gives the names of the trees generally found on the plains, and the second in the forests of Travancore.

Trees found on the plains.

1. Acacia arabica കരുവേൽ.
2. ,, Catechu വെൾവേൽ.
3. Aegle Marmelos—The Bael fruit, വില്വം—കൂവളം
4. Albizzia Lebbek—Vaha വാഹ.
5. Anacardium occidentale കൊട്ടമുന്തിരി—കൊല്ലമാ—അണ്ടിമാ
6. Azadirachta indica } Both are considered as Neem or
7. Melia Azadirachta. } Vembu which keeps off plague.
8. Bassia longifolia ഇലുപ്പ, Eluppa.
9. Cassia fistula കൊന്നെ—കൊന്ന.
10. Citrus Aurantium, Narakam—Orange.
11. Erythrina indica, മുരുക്കു Murukku.
12. Feronia elephantum, വിളാത്തി Vela.
13. Moringa pterygosperma, മുരുങ്ങ Murunga.
Horse-radish tree.
14. Odina Wodier,—Othy ഒതി—ഉതി.
15. Terminalia belerica താന്നി—Thani.

Trees in the Forests.

16. Anogeissus latifolia—Vekala വെക്കാല.
17. Bauhinia racemosa അത്തി.
18. Bombax malabaricum, Cottonwood—Elavu.
19. Butia frondosa പലാശം പുരശ്ശു.

The above lists are not exhaustive; such familiar trees as the cocoanut, palmyra, jack, mango and tamarind also yield gums of economic value, but I have not mentioned them, as causing wounds to them in order to take gums would be injurious to the more valuable products that are obtained from them and would not be commensurate with the advantage gained thereby. The fruits of Nos. 3, 9 and 12 also yield gums of economic value.

T. PONNAMBALAM PILLAY.

A PRINCE OF THE LAND OF CHARITY.

IN the early years of the eighteenth century, the dominion of the Travancore sovereigns was confined to the south-eastern corner of the present State, and some detached land near Kayanculam, inclusive of Mavelikaray. Venad or Vanchi, as the kingdom was then called, had not even an eighth of its present extent. Its southern or rather south-eastern limit was Aramboly on the Tinnevelly frontier, while on the north it was bounded by the waters of the Edava lake. The whole extent of territory constituting modern Travancore was split up into a number of independent states* ruled over by as many Rajas and petty chieftains, who were constantly at war amongst themselves, till they were finally subdued by Maha Raja Marthanda Varma of famous memory. Those were the days for Sivajees and Hyder Alis and many a mute inglorious provincial, wasted his powers in this corner of the land. Lawlessness was the order of the day. History records how five infant princes of the Travancore royal family were smothered in the tank since known as *Kalippankulam*, how the royal family was hunted from place to place by the *Ettuveetil Pillamar* or chiefs of the eight houses, how prince and peasant vied with each other in deeds of devotion, and how eventually our warrior-king successfully brought his enemies to book.

It was probably in the course of one of these shiftings or migrations, that the royal party halted at the site of the present Karimpali-palace, in the Taluq of Karticappalli, in Middle Travancore. And here, in obscurity, in exile, in distress, was born one of the most illustrious, if not the most illustrious, of the rulers of Travancore.

Tradition says that in this sheltered spot Prince Kartica Thirunal lived during his childhood, and for a few years‡ after his uncle Marthanda Varma ascended the throne. Those were troublous times and perhaps the king himself was not so securely placed, that he could afford to have the heir of his house by his side. It is not certain whether the place of the Prince's birth, belonged to the principality of Kayanculam, or was a portion of Travancore territory. It would be nothing strange, in those days of unbridled cruelty and unbounded hospitality, if the Kayanculam Raja himself had afforded shelter

* Nanjenand, Venad, Elavathunad, Desinganad, Venad=Kayenculam, Chempakasseri, Thekunkoor, Vadakankur, &c.

‡ 903 to 933 M. E. or 1728 to 1758 A. D.

to our distressed royal house. It is also probable that the site belonged to the old Madathincoor line of Rajas that ruled over Mavelikaray and adjoining parts till about 850 M. E. when that dynasty became extinct, and all their possessions fell to Travancore. However, it is beyond dispute that Kartica Thirunal Raja was born here and that the royal party sojourned in this neighbourhood for some time. The name Karticappalli too is regarded as significent. (Karticappalli=Kartica royal or the royal star of Karticay).

Though many of the noted charities of the State had their inception in the previous reign, it is with the name of of Karticay Thirunal, Rama Varma Maharaja, the Rama Raja of the people, the Dharma Raj of pilgrims from Nepal to Cape Comorin, that the glorious appellation, *Dharma Rajyam* or *Land of Charity* is familiarly associated.

Born under the star Karticay in M. E. 899 (A. D. 1724) Prince Rama Varma grew up a pattern of nobility. The following story which the present writer has had from more sources than one, typifies the character of Rama Raj in early boyhood, and is also sufficiently illustrative of the ideals of the times.

While yet nine years old, and before *Thirumatampoo*, or investiture with the sacred string, on one occasion, as the Prince was taking his early bath at Karimpali, there came to the same tank, an old Brahmin of venerable aspect. He was a noted divine of the age, known as Poralavoor Adithiri, a *Somayaji* (one who has performed the Soma sacrifice) and a Dwi-yaji (one who has performed two yagams or sacrifices). As a dutiful Kshatrya the Prince made his customary obeisance, drew aloof from the main ghat, and awaited interrogation.

Adithiri:—(Evidently taking the Prince for an *Ambalavasi*)* "Which is your Varyam or Psharam,‡ my boy?"

Prince:—(Not undeceiving the old man). "I live in the adjoining house." "Your eminence is a stranger, I believe?"

Ad:—"Yes, I come from the north and am going to Trivandrum. Can you direct me to some place where I can cook my meals?" (In Malabar, Brahmins can cook and eat their meals in Ambalavasi-houses).

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* Literally dwellers in temples, *i. e.* those who perform menial services in a temple, and comprise several castes such as Varyar, Phsharoti &c.

‡ Varyam=A Varior's house. Psharom=A Psharoti's house.

Prince:—Your eminence need not have any anxiety on that account. I shall arrange everything; may I know what takes your eminence such a long way to Trivandrum?"

Ad:—"I have nothing to hide. I am a poor man and have nine daughters; they are all getting old, and I have not got the money to get them married. I hope to secure from the royal bounty enough at least to get one daughter married."

Prince:—"And what dowry have you to pay in those parts?"

Ad:—A thousand fanams* at the lowest.

> The Prince then went up to give some order to a servant and the holy man continued his ablutions and morning rites. He was then led up to the house by the Prince himself, where had been placed ready for the guest, a jug of water to wash his hands and feet, with a wooden seat, and a plantain-leaf spread with such homely fare as was customary in a Brahmin household.

Prince:—I am a Khshatrya; we have a Brahmin cook; your eminence may dine here.

There was nothing to arouse any suspicion Everything was on the simplest possible style. The Prince, though now Elaya-Raja, (heir-apparent), was living almost *incognito*. Dinner was in due time over, and the party adjourned to the *Poomukham* or portico, which, where there is one, is still the general reception-room in a Malabar house. The Prince then solicited permission to make a small offering in honour of the occasion, and presented the holy man with a piece of silk and a bag containing a thousand fanams.

Prince:—"Let me hope that this would save your eminence a tedious journey to Trivandrum."

Though the divine had already been impressed with the courtesy and high breeding of his little host, he was not prepared for conduct like this. A thousand fanams in those days was equivalent to a thousand Rupees in these. As if because no answer was forthcoming, the Prince nodded to a man in waiting, and forthwith were brought another piece of silk and a bag of coins, and another, and yet another, till there lay at the holy man's feet, nine pieces of silk and nine bags of a thousand fanams a piece. And there lay the Prince prostrate on the ground, begging pardon for the deception,

* A coin of the value of a little over 2 annas 3 pies.

and craving his sacred blessing. The old man could not utter a single word; he was so moved. He raised the Prince from the ground, seated him on his lap and tears of thankfulness welled over the Prince's head.

The money had been sent by a neighbouring chieftain known as Vattapparambil Valiathan $ in response to a note from the Prince. One passage of the note is still repeated as characteristic. "If you send the articles herein requested the obligation shall not be forgotten; if you do not, that too shall not be."

Some time afterwards, the story came to the ears of the reigning Maha Raja, and a messenger was despatched express to bring the Prince to the capital. The temper of the king, (it is well known) was none of the calmest, and the courtiers trembled for the heir-apparent, as he was on arrival, forthwith taken to an inner appartment and the door bolted. What happened, however, belied all anticipations. The uncle fondly embraced his little nephew, thanked him for keeping up the traditional credit of the house, blessed him, and wept tears over his head. "*No supplicant shall be turned back from the Travancore door. Charity is our household divinity.*"

This incident is said to have been alluded to by the Prince himself at a subsequent period of his life. Marthanda Varma Raja died in 933 M. E. (1758 A. D.) and (Prince) Kartica Thirunal Rama Varma ascended the throne. Several years later, came on Tippu's memorable invasion of Travancore, and the check which he met with, by an unexpected flood of the Alwaye river. The Maha Raja, who was then past his three score, is said to have quietly remarked, "Now, I feel the blessed tears that the holy Adithiri and my revered uncle shed over my head."

S. KRISHNA AIYAR.

$ Valiathan=Valia-sthan, great or high rank. The Valiathan was of great service to Marthanda Varma Raja, at the conquest of Kayanculam. Vestiges of an old fort, a rusty piece of cannon, some rustier shot, and an armoury containing relics of a few time-honoured weapons, still preserve the memory of the ancient power of the Valiathans.

ADVAITISM IN BRIEF.

THERE is but one absolute existence, called Brahman, which has two states, the unconditioned, called *nirguna*, and the conditioned, called *saguna*, in which latter state, it is called *Isvara*. In the conditioned state Brahman manifests its indescribable power, called *maya sakti*, whence comes the material world. Soul or Jiva is identical with Brahman, but when associated with matter, the soul considers itself as an independent entity, whence comes repeated birth or taking of physical body, which is the cause of misery. The highest end of man is to overcome birth. Just as the idea of separateness produces birth, the idea of unity overcomes it. The knowledge of unity is called *jnana* or knowledge. Karma or ritual which includes worship of *Isvara* is only a preparation for *jnana*, but *jnana* is the only means of liberation. Karma cannot be conjoined with *jnana*, for *karma* depends on ignorance and is based on duality, while *jnana* depends on knowledge and is based on unity. *Jnana* is twofold, *paroksha* or indirect and *aparoksha* or direct. *Paroksha jnana* is the idea of unity learnt from books and through teachers. This indirect knowledge has to be turned into direct knowledge by verification and constant thought. When *aparoksha jnana* arises, the *jnani* looks upon everything as himself and sees no duality anywhere. Such a *jnani* becomes *Jivanmukta* or liberated. Even a *Jivanmukta* may do acts based on duality, as long as his physical body continues, but they do not affect him, for he has been convinced of and has realized the unity of all. It is not necessary that a *Jivanmukta* should have his consciousness extended so as to embrace the physical and other subtle worlds. The *Jivanmukta's* object is to deny even the small circle of existence with which he is nearest associated. This being so, he would not care nor is it necessary for him to extend the circle of his consciousness. No doubt this is possible by *Yoga* which is a part of *karma* but this is not *Brahmajnana*. The *Jivanmukta* realizes that he is Brahman completely, immediately on physical death. He has no further evolution anywhere. The *Jivanmukta* retains no individuality. While even in the deep sleep condition one does not retain individuality, need it be said that he retains none in the highest condition of liberation? To say that a *Jivanmukta* must attain liberation gradually by evolution along the lines of his descent from *Isvara* is unsound, for evolution applies only to matter and not to the *jiva*,

for *jiva* is always identical with Brahman. Only the illusion of duality caused by association with matter has to be transcended by knowledge. But to the *avidvan* or the non-knower, gradual evolution is the course. In the case of him who does not follow the path of righteousness he suffers after death and is reborn. In the case of him who follows the *karma marga* he goes to the celestial regions, enjoys happiness there for some time and then returns. In the case of him who worships the manifested Brahman, he goes to his world, there attains the knowledge of unity and then realizes himself as Brahman. Such in brief is *Advaita*, the philosophy of Sankara which is adopted by Theosophy and which agrees fundamentally with monism—the philosophy of Science.

N. K. RAMASAMI AIYA.

COL. JAMES WELSH'S MALABAR REMINISCENCES.

(*Continued*).

WE left the Colonel at Calicut in 1817—18, mingling freely with the European officials of the Station. Thence he set out on a series of sporting excursions to the south availing himself of water communications up to Trivandrum. He touched at Ponnani otherwise known as *Ponnakkal* especially amongst the Moplah community which is predominant there. It is the seat of their spiritual chief the *Mookdoom* who maintains a sort of seminary where religious teaching is imparted to candidates for priesthood, who go out as Mollahs to all parts of Malabar. The author thus describes the town:—

"The town is situated on the southern bank of a broad and navigable river† and has the sea on the right. Travellers are accommodated in a good upstair house facing the river and commanding a view of the sea as well as the interior * * Of the trade and navigation of this place I am inclined to form a high opinion from the bustle I observed all day and the number of boats of burthen at the wharf. I counted thirty-six *manchees* of different sizes from 150 to 250 moorahs and even went on board several of them which were laden with rice, tobacco and cocoanuts, for Mahe, Calicut, Tellicherry and Bombay. * * I could not get hold of one man who spoke the Hindustani and therefore could not correctly ascertain the number of houses and inhabitants, but I am inclined to rate the latter at fifty-thousand,‡ and I remarked for the first time on the coast some good-looking Moplah women in the street. There are very many mosques which resemble pigeon houses and I sketched the largest seen over a high stone-wall in a narrow street."

From Ponnani the Colonel proceeded to Cochin touching at Chowghat, Chetwayi, and Palliport. At the last mentioned town he was entertained by an opulent English merchant, Mr. Tate, who had obtained from the Rajah of Cochin, a grant of a tract of land half a mile broad and several miles in length, of which he was a little sovereign with a free trade on both sides of his territories. This is what he says of Cochin:—

"This place is situated on the sea-shore, at the mouth of a fine navigable river, capable of containing a large fleet. Built by the Dutch, when in the zenith of their power, it was then a port of the first importance, commanding all the trade of the Malabar Coast, and affording the utmost safety in all weathers to the shipping within the bar; over which, however, vessels above three or four hundred tons, can pass at the height of the springs only. The river here passes through the backwater, or inner lake, and spreading out, forms a very fine and deep harbour, just above the town. The hand of time, the not less destructive hand of John Bull, and the extreme poverty of the remaining inhabitants, have alike combined to reduce this once flourishing city, to a small insignificant town; but the massive fragments and ruins of a large fort, in an elevated and well-chosen spot, washed by the sea to the westward, and by the river to the north, amply record

† The Bharata-puzsha or Murala of Kerala literature.

‡ According to the last Census, the population of the town is 10,562.

its former strength and respectability; whilst a few capital dwelling houses, still inhabited and the mutilated remains of others, in long well-paved streets, serve to prove that it has been an extensive and well-built town. The works must have completely commanded the entrance to the river and no ship could have forced its way up, while they were in existence. A ready access to the finest timber for maritime purposes, with the facility of launching vessels of any size, have still secured to the port the almost exclusive privilege of ship-building and the shipwrights and carpenters are, therefore, both expert and numerous. Here of late years, some of the largest and best ships in the eastern and Chinese trade, have been built; and several frigates were also constructed for the Royal Navy; but heavy duties, with the causes already mentioned have now reduced it to insignificance as a trading port; and the houses being generally situated on low ground, the heat is always great and the nights offensive, whilst myriads of musquitoes assail the stranger and increase his annoyance."

Of course the Jews in the suburb of Mattancherry, attracted the notice of so shrewd a traveller as our author. They lived in houses all of one shape with pent roofs and were in dress, manners and customs entirely distinct from Europeans and natives. He thinks they were descendants of original emigrants who fled from Jerusalem when it fell into the hands of the Romans; and their copper-plate grant from the Malabar Rajah showed a date corresponding to 311 of the Christian era. The Colonel had an interview with the then Rajah of Cochin who did not impress him favourably, though he was a good astronomer and well versed in Hindu literature, exclusive devotion to which appears to have incapacited His Highness for the common affairs of his kingdom. His minister Nanjayapiah impressed him as a "cunning fox." The Rajah gave the visitor a handsome present, which, according to the rule of the service then recently promulgated, had to be delivered up to the Resident and a receipt taken. He was enchanted with the Resident's house in the island of Balghattie where he spent many a pleasant day with the then Resident Lieut. Colonel Sutherland MacDowall and afterwards with Lieut. Colonel D. Newall. Continuing his journey southward he alighted at Alleppey. The town, 7 miles in circumference, was built on both banks of a narrow canal connecting it with the backwater and contained a strange medley of people of all nations and languages then numbering about 26000. He was hospitably entertained by Capt. Gordon, of the Bombay Engineers, the Rajah's Superintendent of the Forests. Alleppey was then, as it is now, a place of considerable trade, not being subject to English customs duties. The largest timber from the Trichur and Palghaut forests were floated down to the port and kept ready for exportation in quantities on the sea-shore.

The next town visited is Quilon, the headquarters of the Subsidiary Force in Travancore and Cochin, then under the command of Colonel Sewell of His Majesty's 89th Regiment who showered marks of attention upon our author who had served under him at Bangalore and Vellore when the latter was a general Officer of the Staff in the Central Division. The town was built between the sea and the backwater, the site being low and sandy. There were then temporary barracks for 1000 European Infantry and places of arms for three native corps. The Residency, a mile inland, appeared to the author as one of the loveliest spots in the world, then tenanted by his old acquaintance and brother officer, Lieut. Colonel John Munro who was Resident as well as the Prime Minister of the State of Travancore whose sovereign then was a Rani. The Colonel returned to Calicut in April 1818 in time to take part in the melancholy funeral of Mr. Pearson, the Zillah Judge, who, while taking a walk in the evening attended by his dogs and peon in the grounds of his Bungalow, was bitten in the bare instep of his foot by a snake supposed to be a carpet-snake and died in excruciating pain. The treatment adopted was this: first a snake-stone was applied to the wound *viz.*, a thin flat stone resembling a petrified bone about an inch in diameter believed to be capable of drawing and absorbing the poison from the wound, but it did not produee any good effect. Next was tried *eau de luce*, a milky mixture of rectified oil of amber with alcohol and ammonia but equally without effect. A vein was opened above the wound which produced blood in a very bad state. By 11 P. M. the victim's throat was affected and his voice failed, convulsions ensued and he expired at 9 A. M. on the morning of the 26th, the body having changed colour some time before dissolution. His untimely death seems to have cast a gloom over the small European community of Calicut.

In the author's dissertation on the various castes of Malabar, I shall select his account of the *Nayadies* for notice. What he says regarding them is true to this day. They are the lowest and most abject human-beings who inhabit the jungle and wild uncultivated parts of South Malabar, jet black in complexion, with bushy hair and features approaching the Kaffirs of Africa, little above brutes in intellect, wearing little or no clothing and living on trees, in bushes and holes in the ground but occasionally crawling to the roadside and setting up a loud shriek in order to attract the notice of the passers-by with

a view to effect barter of baskets and ropes they manufacture, and also bundles of twigs, wild berries and honey-combs they collect in jungles. These people are one of the aborigines of Malabar. Mr. T. H. Baber appears to have tried his utmost to ameliorate their condition by unreserved intercourse with them and by employing them on shooting excursions along with Nairs and Tiers, and touching them without scruple and persuading his attendants to do the same and by giving them daily payment for their labors in the jungle and purchasing their baskets and ropes. Anyhow the condition of the Nayadies has not much improved since 1818. Mr. Logan in his *Malabar* (page 152) alludes to them as the lowest caste among the Hindus—the dog-eaters—and observes that if anything is given them it must be laid down and after the person offering it has proceeded to a sufficient distance, the Nayadi comes timidly forward and removes it. These people, however, have the reputation of being great necromancers in Walluvanad. I fancy *Nayadi* literally means one who hunts with the aid of dogs and not dog-eaters, though they may have a partiality for canine flesh.

Though at the risk of doing violence to my chronology, I must go back to the Colonel's Reminiscences in North Malabar. After taking part in the suppression of Ramanampi's rebellion in the Wynaad in the early part of 1812, he returned to his station of Seringapatam, having in the meantime obtained his promotion as Lieutenant-Colonel. [After seeing some service in Nandidroog he was in October ordered on duty to Cannanore to which station he set out on horseback in company with a Lieutenant Meredith, through Mysore and Coorg. They attended the Mysore Rajah's Dasra Durbar on the 15th, the Rajah greeting the Colonel as the *Wynaad gentleman* and paying him special attention as the colleague of his own Commander-in-chief, who participated in the suppression of the rebellion already mentioned. On the 26th, he crossed the *Higgirh* Pass in Coorg with which he was so charmed as to give expression to his feelings in these eloquent words:

"A cataract crossing from a stupendous mountain at some distance on the right, occasionally appearing always adds to the enchantment of the scene, by its murmuring sound; while every beauty which can be conceived or found in the rude garden of nature is here assembled, and the trees, in particular, unite majestic

height with elegance of symmetry. We got one or two hasty views of Malabar and Canara Districts but a haze prevented our seeing them to much advantage."

The eagle eye of Sir Arthur Wellesley, afterwards the great Duke of Wellington, had already selected Cannanore as the station for the newly formed military command of Malabar and Canara, then held by Lockhart of the 30th Regiment, the garrison consisting of that regiment, the 2nd battalion of the 3rd, the 2nd battalion of the 9th and the 1st battalion of the 15th Regiment. On the 27th October the Colonel and his friend reached this historical place and here is his impression. "The fort is small, irregular, and ill-constructed, although the site is well-chosen; and to remedy original defects, a number of outworks have since been constructed but in my opinion of no avail; because it is most assailable when these works terminate, without the necessity of approaching them. The walls are built of the soap-stone peculiar to this place; in its original state it is an orange colored porous clay, found all along the coast; a few feet below the surface being easily worked at first, it is cut into slabs, the largest kind of which are two feet long, one foot broad and eight or nine inches thick, which being merely taken out and exposed to the weather becomes capital stones for the most durable buildings as time only increases their strength. United generally with light clay it looks very well, but does not so well stand the heavy rains which on this coast, fall from May till November; though with chunam it not only looks beautiful but lasts for centuries. The old Governor's house in the Fort is an excellent edifice and has been converted into an arsenal and there are also some good store and guard rooms in it, but it is not inhabited, and only the daily guards reside there. The cantonment, though situated in a very airy, healthy spot, is most irregularly laid out and has an exceedingly uncouth appearance. The houses being very slightly built and covered with cocoanut mats with roofs reaching down nearly to the ground, look more like a parcel of rude huts scattered over a plain than the habitations of gentlemen and yet some of them are very comfortable within; and those situated on the sea face are cool all the year round. No one who has been stationed on this coast in the South-west monsoon can conceive the necessity for spoiling the appearance of the houses and depriving them of a considerable share of light; but the rains when driven by the winds are

frequently almost horizontal and the damp even with this unseemly precaution, penetrates everything * * * * And the town of Cannanore is about two miles off to the southward. A small harbour entirely commanded by the Fort also lies to the southward and washes the wall on that face; it is shallow and will not admit ships of any burthen but is excellent for all kinds of boats and country craft and in it the soldiers bathe, although outside, all the coast is infested by sharks in thousands. The tower is on the eastern shore of the harbour but the ground being very low the bold cliff ending with the Fort, even the largest houses are extremely hot and oppressive. In it resides the Beebee of Cannanore in a comfortable but old fashioned mansion, and the principal trade of the place still belongs to the Princess who has several vessels and yearly gives a free passage in them to Mocha and Jiddah, to numerous Mussalman pilgrims for Mecca, who also return at her cost. This lady is a *maupulchee* as they call the females, and I can bear testimony to her kindness and goodness of heart. She has built a capital upstair house on the sea-beach but being divided from the dirty town by a narrow street only, it is consequently a very hot habitation; there she occasionally gives entertainments to the ladies and gentlemen of the station."

The Beebee's Palace at Cannanore is known as *Palamadam.* The members of the family succeed to the Cannanore musnud according to seniority and irrespective of sex, and, when the occupant is a male, he is generally styled Sultan Ali Rajah of Arakel, Cannanore. From Cannanore, the Colonel proceeded to Tellicherry and was the guest of Mr. Baber the Judge. One incident of a subsequent visit was the "cocoanut-throwing" ceremony already described. The Tellicherry of 1812, as contracted with its present condition, with a railway running through it, deserves an ampler notice. As the seat of the Provincial Court, a Zillah Court, Pundit Sudder Ameen's Court and Mufti Sudder Ameen's Court, it was a far more important place than it is now. The Provincial Court Judges had jurisdiction over the whole Malabar and Canara (inclusive of the North Canara District since annexed to the Bombay Presidency) and moved with their large establishments north and south on circuit. These bigwigs when at home resided in palatial houses on separate hills at considerable distances from each other, the two outermost being six miles asunder. I have no doubt our author was referring to

the house on Durmadam hill known as Mr. Shakespear's house and the house on Kodakat hill on the northern brow of Mailan-kunnu hill, known as Mr. John Vaughan's house. Both the houses have disappeared, mounds of earth alone remaining to indicate the sites on which they once stood. The *Mora Coon* house a mile and half to the east of the town still exists and has been in the occupation of Messrs. Volkart Brothers after it was abandoned by the Judge Mr. J. W. Reid during the seventies, for the old *Koduvelli House* situate on a pretty little promontary now rendered unsafe by land-slips on the sea-front. The *Pally-Coon*, has already been noticed. The other old historical houses in the town are (*a*) the Brennen house now the Sub-Collector's bungalow, but which was long the residence of a benevolent Sea-Captain, Edward Brennen, master-attendant and Salt Superintendent who left the fortune he amassed at Tellicherry in founding a college named after him, a chapel and a poor house; (*b*) Mr. Murdock Brown's house generally known as Anjerakandy Brown's house in the quarter known as *Palaya-Tellicherry*, now in the occupation of Mr. J. B. Burnett, a merchant of established position on the Coast; (*c*) *Illy Coon* house on a hill on the eastern bank of the river very near its mouth, which was built by the Judge Mr. T. L. Strange and made a gift of by him to the Basel Mission who are still in possession of it; (*d*) *Coonjee Coolam*, rather a modern building, on the eastern bank of the river where it makes a bend, which has undergone vicissitudes not unlike those of *Pally Coon* and is at present untenanted; (*e*) *Chonadam* still further to the east and a still more modern building, the country place of business of Peirce Leslie and Co., with a beautiful bungalow for the residence of the managing partner or assistant, famous for its fernery, ornamental, useful and herbacious plants and flower garden; (*f*) a row of houses, on the western brow of the Koduvalli hill of which the *Top Bungalow*, very recently built, carries off the palm as far as situation is concerned, commanding as it does a magnificent panorama all round, up at one point, some sixteen miles out in the sea where the well-known *Sacrifice-Rock* looms up in the horizon, at another and nearer point where the railway girder bridge crosses the river just below the *Illy Coon* hill.

Our author was very much struck with the *Green Island* in Durmadam, separated by shallow water from the mainland and about four miles from the Fort, which was during the Colonel's visit

completely covered with deep jungle with goats left there to become wild. The jungle has since been cleared and a dense cocoanut plantation has taken its place, making the appellation "Green Island," more appropriate than ever. The proprietor is a member of the Chowakaran family and he has built a nice little bangalow which is availed of by the Tellicherry folk for holding pic-nic parties. This Chowakaren family deserves some notice here. It was founded by one Moossa Kaka or Moosa Keyi (*Keyi* meaning a freight-merchant) who originally came down here from Chowa, a suburb ofCannanore. He commanded the pepper trade of the coast and during the turbulent period preceding, and the quieter period succeeding, the annexation of the country by the British in 1792, amassed a large fortune which is now shared by four divided branches of his family known as (1) Orkateri (2) Keloth (3) Palayapura and (4) Pudiapura. They own most of the big houses and warehouses in the town besides considerable household properties in Bombay.

The fashionable conveyance of the time was the "Tanjan." which appears to have excited our traveller's ridicule. He describes it thus:—"a rude mis-shapen box called the Tellicherry chair, an awkward and unseemly structure, so made as to have a square frame over the head and placed on an oblong platform, projecting about two feet in front, to form a foot-board; and from the front of this platform, two upright supports are carried to the frame above, over which is fixed an enormous mat umbrella, without a handle; and to finish the concern two thick bamboos, about seven feet long are attached horizontally on either side of the seat, for the purpose of carrying. The rider of this veritable bone-setter gets in by the front. The *Mookkoovas* being the fishermen of the coast are the bearers; and four of them in regular service will carry a person about the station and do other little jobs besides. They carry on their shoulders and in changing with a preconcerted signal, they lift the chair over the heads and bring it down with a sudden jerk on the opposite shoulder, the most unpleasant and sea-sickening motion I ever experienced; and if one of them stumble in going over stony or rough ground, the rider may get a fall, easier imagined than described."

Tellicherry was then a garrison town. The fort appeared to the Colonel a hundred years old but from its antique appearance one might guess a longer age. It was nearly a square and consisted of a

thin wall on three sides, a common gate in the centre of each and bastion at the angles, all low and perforated with loop-holes for musquetry. A small eminence forms the fourth or sea face with a citadel in the summit and a long flight of steps leading to the gate. The situation was commanding but the work would be formidable only to an enemy without guns. In the citadel was a capital house long inhabited by Eliza Draper "celebrated in the lay-writings of two churchmen." This lady appears to have been the wife of Mr. Daniel Draper the Chief of Tellicherry. She was the divinity of Sterne and famous as the Stella of Swift. These appear to be the two churchmen alluded to by our author. In 1773 she escaped from Mazagon House her husband's residence in Bombay. For a fuller account of this lady I refer the curious readers to an article in the *Calcutta Review* on Anjengo, her birthplace, from the pen of Mr. J. J. Cotton, I. C. S., published eight years ago.

In November, the Colonel had a run to the French Settlement of Mahe which though going fast to decay impressed him as a lovely spot as it is to this day. He put up in an upstair house on the river side owned by one Moossa Pakee (Kunhi Pakke Keyi the heir and successor of Moossa Keyi before mentioned). This house is still in the possession of the family. The Colonel made the acquaintance of two old French merchants, M. Dineure and M. Jussain, both very agreeable companions. They appear to have denounced what they considered British vandalism in dismantling during their military occupation, the Governor's Palace, the Church and School, which act, however, it was supposed to have been done in retaliation for similar acts on the part of the French during their occupation of Madras.

The Colonel extended his trip to Kadroor, four miles to the east of Tellicherry, then a fortified place, where a state prisoner in the person of the *Elliah Rajah* (ex-heir) of Travancore was kept in surveillance under Mr. Baber.

We have done with the Colonel's Reminiscences of North Malabar and must follow him again to Cochin and Travancore which he visited in 1824. I am now treading on unfamiliar grounds and will content myself with giving a long extract from his Diary describing his visit to Cottayam in company with Mr. Dalmahoy. It was the head quarter station of the English Church Mission which has done so much for the improvement of Malayalam literature by printing several works, especially a very valuable dictionary.

"On the 5th of December, we set out at sunset in the Greyhound pinnance, and reached the bridge at Cotyam, about fifty miles distant from Cochin, by daylight; where we found the tide so rapid, being affected with the heavy rain amongst the hills to the eastward, that we had much labour and difficulty to stem it. At six o'clock the next morning, however, we safely arrived opposite a large building by the water side, when a servant came down and conducted us to a landing place, where we ascended a bank and reached the residence of the Rev. Mr. Fenn.

Being situated upon a clear rising ground, commanding a view of the river and surrounding country for many miles in every direction; the mind of man could not have conceived a happier spot, on which to erect a dwelling-place. Even in a country, almost every mile of which presents a beautiful landscape to the eye, the panorama from this house surpasses all that I have witnessed; and, as the owner has relinguished it for the future service of the Institution I have subjoined a copy of a rough sketch§ of it, made in my journal at the time of this visit.

I do not know the origin of the College at Cotyam or when it was founded; but it is one of the most interesting Institutions in the East. The Syrian Church to which it belongs, has been established ever since the persecution and dispersion of the Christians at Antioch, from whence they emigrated; and it is an extraordinary fact, that in this heathen country, where the basest superstition prevails, and where the Natives are taught nothing but vice and obscenity$, the most tolerant spirit has always prevailed. So much so, that even Jews, original Christians and Roman Catholics, have alike found a kind reception, and a secure asylum. The number of Syrians in Travancore is variously stated, since they are not confined to one spot, but scattered in communities, all over the country. Though I believe that the greatest number is assembled at and about Cotyam, which is the only public seminary for the education of their priests. Having, therefore, paid more than one visit to this sable University, I shall now endeavour to collect into one view the result of all my observations.

This college, erected on a fertile spot, close to the southern bank of a beautiful rivulet, which, taking its rise in the mountains to the eastward, runs into the broadest part of the back-water, about eight or ten miles below, and nearly opposite the entrance of the Alepie canal, is an extensive square building of some antiquity, with little in the exterior appearance to recommend it. Like many eastern caravansera, it has a wide court in the centre, and rises on all sides to two stories of excellent but rude masonry. I am not certain as to the number of apartments, but they are very numerous, in which students of different languages, and different classes and degrees, are assembled for education: these, I think, occupy the whole of the first story. On the second story is a library, containing two thousand two hundred and fifty elegantly bound volumes, on Theology, Astronomy, Mathematics, History, and in short, every other Science in the English, French, Latin, Greek, Syriac, Hebrew, Malayalam, Persian, Arabic and German languages; as well as a repository of scientific instruments, containing globes,

§ I regret to have to omit this sketch here.

$ A rather uncharitable view characteristic of a superficial observer.

orreries, telescopes, an electrifying machine, air-pump, magic-lanthorn, microscopes, &c., all of which are of the best quality. The Professors or gentlemen of the Mission, have rooms upon this floor, in which to examine the students etc,. and the present establishment consists of three English gentlemen, all, I believe, ordained; Messrs. Fenn, Bailie and Baker; with a very clever young man named Ryan, as a Greek and Latin tutor, and various Native Assistants. In the same compound the English gentlemen have lately built a small Chapel for their own use, of the simplest and most modest construction, but perfectly adapted to the purposes of so small a congregation, consisting generally of their own families, and a very few of the students, who are proficients in English. At a short distance, and separated by a rude wooden bridge across a branch of the river, stands the Syrian Cathedral and the Metropolitan's house; both well-built, and neatly finished buildings; the house being in imitation of those generally built by European gentlemen in the East.

The residences of the English gentlemen are all on a rising ground, to the eastward, at a considerable distance from the College. Mr. Fenn's being the only upstair one; and these gentlemen divide the duties of their superintendence, each having a distinct department under his control. Mr. Bailie had the management of the Malayalam or Native printing, and the types were actually made in his own house. This language being the Native, is, of course, principally required for the great body of the Syrians; and I not only saw the whole process of casting, cleaning, and fitting the types performed by a silversmith, armourer and carpenter, but, on proceeding to the printing office, had several copies of the Lord's Prayer struck off for me, and placed in my Journal. Mr. Fenn had the direction of the scientific and classic parts and I was present at some very interesting examinations of student candidates for the priesthood; for to that office alone does the whole process lead. On one occasion, with Mr. Dalmahoy, we first visited the Library and the observatory, which occupied some hours; and then descending passed through the different rooms occupied by students in different classes of Latin etc. We next ascended to Mr. Fenn's room, where we heard the examination of seven native scholars, apparently between the ages of fourteen and eighteen The first book was Virgil, which they were then learning, and with which they were quite *au fait*: a passage in Caesar's Commentaries, which they had never read before was then given to them, which they immediately rendered into good English; and in short evinced a surprising proficiency in the grammars of both languages, equally foreign to them. Even my companion, who was young enough to be my son, and, of course, more conversant in these matters, was astonished at their display. I have forgotten the rest of this examination, as we were pressed for time and did not return home, till dinner had been long waiting for us.

At another visit, when there with my own family, we were present at the examination of the four elder boys, who displayed uncommon acuteness, particularly in reading and translating the Scriptures; and after they had finished, Mr. Fenn desired me to question them from any part of the Bible; when taking the New Testament I desired them to answer me in as few words as possible "which was the most remarkable passage in the life of St. Paul?" One said When he was in the Island of Melita and a snake fastened upon his hand;"

another mentioned the scene in the prison, when the gaoler was converted; but Marcus, who is a very superior young man said "when he was going to Damascus, he saw a light and heard a voice from Heaven." This was exactly what I had fixed upon, namely, his conversion; though expressed in a more prolix manner; but all their answers proved a knowledge of the Bible, or at least of the Acts. We one evening visited the Archbishop, who received us with much respect and kindness and showed us his house and grounds. He was very fond of appearing among Europeans in his full costume, but was unwell when I saw him, and died shortly afterwards: he had always been on the most friendly terms with the gentlemen of the College, who seem generally esteemed by the Natives; as every pious Christian always will be, by the bulk of mankind."

From Cottayam the Colonel continued his journey to Mannarcaud, to Kalerah and ultimately to Trivandrum where he passed a few days at the Residency with Colonel Newall and paid a visit to the Royal family. The Rajah was a minor of thirteen years whose studies under a Tanjore Brahmin tutor he had an opportunity of witnessing and whom he judged to be a clever student. He also met the Dewan Venkat Row who impressed him as an uncommonly handsome, fair and elegant Carnatic Brahmin, one of the most intelligent and well-educated men he ever came across in India, a minister most attentive and unremitting in his exertions for the improvement of the country and the good of the State.

From Travancore the Colonel was summoned for duty in Northern India and he finally retired in 1829. His Diary which he styles "a plain and unpremeditated narrative" is one of the most interesting books that I have ever read.

E. K. KRISHNAN.

REVIEWS AND NOTICES OF BOOKS.

MANUEL DE LA LANGUE TAMOULE.

(*Grammaire, Textes, Vocabulaire*)

BY JULIEN VINSON, (Ernest Leroux, Paris).

WE welcome the book as a good contribution to the study of the Tamil language. We are afraid it is not likely to be appreciated in Southern India as very few, interested in the study of Tamil, know French. So it would be a desirable thing if the author could arrange for an English translation of the book.

But before the translation is published we should like to have the surprisingly few misprints corrected. And another thing. We wish to have removed as an illustration *le juron energique* mentioned in p. 40 l. 3. In French many things may be permitted. We have authority for it. Says Biddy Fudge:

> Though the word on good manners entrench
> I assure you it is not half so shocking in French.

Possibly. But the word is Tamil and we wish it away.

One particular feature of the Grammar is the great attention the writer bestows on the colloquial idioms spoken in Southern India. This shows the impartial scientific spirit. Which Pundit among us would condescend to notice these colloquial forms? Another feature, and a commendable one, is that the Grammar questions are discussed in the large spirit of comparative philology. In this connection we gladly refer to that pitfall of purely Tamil Grammarians *Thonnuru* the author of Nannul having nobody to approach him *in the neplus ultra* of absurdity he reaches in explanation of the form. M. Julien Vinson properly refers to forms in the allied languages and arrives at the right explanation that it is a defective form of 100.

The introduction gives a brief account of the Tamil language. The first part of the book treats of Grammar under the headings of phonetics, nominal and verbal formation and syntax. We are glad to find that phonetics finds its proper place in Tamil Grammar at last. That part used to ride Grammar as a nightmare. The second part is the *Reader*, and the third consists of *Notes on Prosody* Grammatical resume &c. The book is a creditable addition to scholarly works on Tamil Grammar.

REPRESENTATIVE INDIANS: Bharata Vilasum Press, Trichur.

This is a Malayalam rendering of the late lamented Mr. G. Parameswaran Pillai's *Representative Indians*, a work that ought to be carefully read, marked and inwardly digested by the rising generation of Southern India. The editor has done well in having issued a Malayalam translation of this excellent work, and the thanks of the Malayalam speaking community are due to him for having placed within their reach a book, a close study of which cannot but act as a spur to our young men to make their lives sublime. It may not be possible for all our young men to become as great as the men whose lives are recorded in the work under notice. But there is nothing to prevent them from having high ideals which, if they are not always able to reach, they will have at least the satisfaction of having made an earnest endeavour to do so. There must be, in the generality of cases, a great disparity between our ideals and our performance. That, however, should not preclude us from pitching our aims high and endeavouring to realise them. Translations of works lfke the one under notice deserve to be warmly welcomed. Publications of this nature are not likely to pay their way unless there is official patronage. The age of public support in Malabar is still in the womb of the future and struggling authors have therefore to look to patronage as their sole means of support. The Malayalam books that are generally used by our students are written in a stilted style and are certainly not a well of Malayalam undefiled. We congratulate the editor on the excellence of the translation and hope that his disinterested labours in the field of literature will be widely appreciated by the Malayalam speaking community.

MALAYALAM READERS, PARTS I, II and III: By K. Narayana Menon, Malayalam Pundit, District School, Tripunithura.

Mr. K. Narayana Menon of the Cochin Educational Service has published a few Malayalam Readers for the use of the Upper Secondary students of our schools. We have gone through these Readers with some degree of care and we are glad to be able to say that they deserve a warm welcome. The lessons in the Readers are sufficiently varied and interesting and cover a wide range of subjects. The language is chaste, idiomatic and elegant throughout. We wish we were in a position to say the same thing of the ordinary run of Malayalam Readers. We do not mean to say that these Readers are ideally perfect. Nothing human is or can be so. They have their own imperfections, and one of them is the want of illustrations. It is to be hoped that the author will see his way to remedy this imperfection when a second edition is called for, as we have no doubt it will be, ere long.